DELIVERABLES ASSOCIATED WITH
THE OPERATIONS PLAN COMPONENT OF
THE FORT ORD BASE REUSE PLAN

TASKS 4.2.1 4.2.2 4.2.3 4.2.5 4.2.13 4.2.14

FINAL
PUBLIC FACILITIES
IMPLEMENTATION PLAN (PFIP)

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CONTEXT OF THIS REPORT

It is anticipated that the Fort Ord Reuse Operations Plan, when completed in March of 1996, will contain three discrete sections, namely:

- **Comprehensive Business Plan (CBP)**
- **Public Facilities Implementation Plan (PFIP)**
- **Public Services Plan (PSP)**

This report brings together information from the EDAW/EMC 2015 reuse plan, from previous deliverables for the Operations Plan, and from the published Fort Ord Reuse Infrastructure Study (FORIS). These sources are the basis for Capital Improvement Projects (CIP) budgets to guide expenditures in support of planned reuse activities.

This budgetary guidance has direct application to the construction of the financing program which will be included as part of the final PFIP. It is also indicative of the sequencing of the array of public improvement projects of Fort Ord in accordance with the EDAW/EMC land use plan and phasing considerations.

TABLE OF CONTENTS

PFIP 1. PUBLIC IMPROVEMENT PROJECT SELECTION

PFIP 2. 05-04 INFRASTRUCTURE COST ANALYSIS

PFIP 3. OPERATIONAL CONDITIONS AND CAPITAL IMPROVEMENT PROJECTS (CIP) BUDGET

PFIP 4. BURDEN ANALYSIS

PFIP 5. Public Facilities Financing Plan

LIST OF TABLES AND FIGURES

PFIP 1. PUBLIC IMPROVEMENT PROJECT SELECTION

PFIP 2. 05-04 INFRASTRUCTURE COST ANALYSIS

PFIP 3. OPERATIONAL CONDITIONS AND CAPITAL IMPROVEMENT PROJECTS (CIP) BUDGET

PFIP 4. BURDEN ANALYSIS

PFIP 5. PUBLIC FACILITIES IMPLEMENTATION PLAN

PFIP 1. Public Improvement Project Selection

1.1 BACKGROUND FOR THIS REPORT

This report has been prepared as part of the Operation Plan Component of the Fort Ord Base Reuse Plan. The information presented in this chapter is based upon current base reuse planning effort by the EDAW/EMC Team and draws from assumptions, strategies and finding as prepared by this Team. The foundation for the analysis contained in the Operation Plan is EDAW's November 2, 1995, land use/employment/residential forecasts, which were revised/updated on November 14, 1995 and on December 4, 1995.

The capital costs assigned to each public improvement project are based upon concept plans at a scale of 1":1000'. Costs are preliminary and present the conceptual nature of infrastructure planning to date. Costs do not include demolition, except as noted, hazardous waste or munitions clean up, environmental mitigation, or right-of-way within Fort Ord, agency fees, financing costs or on-going operations and maintenance. The schedule is based on route information available as of November 1995. The EDAW/EMC Team Members assume no liability for changes in quantities or prices due to unforeseen or subsequent conditions or for changes directed by controlling agencies. The costs presented are those expected at mid-year 1995 and no future cost escalation is included. They include a 15% contingency and 20% for Engineering, Administration, Surveying, Soils Investigations and Construction Management.

As is apparent, no capital improvement costs are included for electrical, gas or communication systems. It is assumed that transfer of these facilities will take the form of negotiated sales between the Army and qualified private utilities. Therefore systems upgrade and expansion costs are expected to be included in the rate structure of those utilities.

The work related to the infrastructure systems draws from the original work completed by Reimer Associates in the Fort Ord Reuse Infrastructure Study (FORIS) Master Plan Report. In addition, the information developed by Reimer Associates for the Defense Conversion Action Grant Application has been taken into account in the selection of projects. The transportation project selection and allocation of costs was based upon JHK's rerun of the TAMC model based on the new land use plan presented to FORA by EDAW/EMC.

Additional background and input for this report comes from conversations and interviews with Monterey County, the Cities of Seaside and Marina and other appropriate local and regional agencies.

1.2 AUTHORS OF AND PARTICIPANTS IN THIS REPORT

The work presented on the following pages is the result of a collective effort with the following participants.

1.2.1 Authors:	Responsibility:
Reimer Associates:	Infrastructure Systems Evaluation and Identification; Overall Project Selection, Costing, and Phasing; and Report Coordination and Preparation.
Angus McDonald & Associates:	Public Services Evaluation and Funding Sources Identification.
Input from:	Responsibility:
JHK Associates:	Transportation Modeling, Project Listing, Costing and Allocation.
EDAW, Inc.:	Parks and Recreation Project Identification and Costing.
Zander and Associates:	Habitat Management Costs.
SKMG:	Early Site Identification

1.3 REPORT ORGANIZATION AND ASSUMPTIONS

This report represents the deliverables which respond to Task 4.2.1, 4.2.2 and 4.2.3 of the Scope of Work and is reinforced by a detailed discussion of Sources of Financing. The reader will find the financing discussion Sections 1.4, 1.5 and 1.6. Section 1.7 displays the public improvement projects selected for inclusion in the Capital Improvement Budget phases through 2015 and Section 1.8 presents the 05-04 Infrastructure Cost Analysis. (05-04 is the version identifier - signifying the 5th version of the Reuse Plan and the 4th modification to the infrastructure analysis on that plan. This nomenclature has been used since 1993). The selection process employed is that of isolating the "backbone" infrastructure elements which are of base-wide service significance. The service demands placed on each such element is then calculated from the land use patterns and intensities as reported in the EDAW December 8, 1995 database. The element is then sized to accommodate the service demand and phased in respect to the expected time of development through 2015. Since the overall "backbone" infrastructure plan has been laid out to serve ultimate buildout, there is a resulting provision for some carryover capacity which is constructed before 2015 but will provide service capacity beyond that date. It is the infrastructure engineers judgment which is called upon to match current service requirement with a balanced infrastructure and to present that system in the form of a Capital Improvement Budget.

The following comparison displays infrastructure costs by system category for both the 04-03 Infrastructure Cost Analysis as presented in the FORIS Master Plan in December 1994 and the current cost figures. As expected, the ensuing 12 months since December 1994 have helped to clarify certain infrastructure issues which have cost implications. These issues include:

- Defense Conversion Action Grant award from EDA and the reasonable chance of obtaining "Round 2" grant funding.
- Reduction in polygon development densities and infilling so that capacities in existing systems can utilized for a longer period before expansion is required.

- A better balance between jobs and housing which reduces trip generation across base boundaries.
- Plans of Action Recommendations to serve Southwest and Northwest service areas from neighboring off-base water and sewer systems are followed.
- Accommodation of the POM Annex relocation program to be concentrated east of North/South Road. This response requires infrastructure extension into polygons not previously scheduled for service before 2015.
- Army investigation and repair of the existing sanitary sewers on base.
- TAMC Model runs to validate allocation of transportation costs based upon "select link" analysis.

Table PFIP1-1
Comparison of Infrastructure Cost Analyses - Versions 04-03 and 05-04

Infrastructure System	Current 05-04 Infrastructure Cost Figures	FORIS 04-03 Phase 1 Figures
Transportation System	$136,510,000	$152,395,000
Water Supply System	$38,200,000 (Reused water project costs are not included)	$56,720,000
Wastewater Collection System	$10,630,000	$22,960,000
Drainage	$3,590,000	$2,500,000
Parks and Recreation	$22,575,000 Local jurisdiction financed	Not included. Considered as on-site costs
Habitat Management	$668,000	Not included. Considered as on-site costs
Public Services	$1,110,000	Not included
Energy Supply	Not included. Considered as Utility Co. obligation	$35,425,000
Total - rounded	**$213,500,000**	**$270,000,000**

1.4 SOURCES OF FINANCING

1.4.1 Introduction

The present section describes the possible sources of financing for public capital facilities in the jurisdiction of Fort Ord. Consideration is also given to financing for ongoing operations - the revenues and charges that will be available year after year to operate and maintain capital facilities once they are constructed.

The section is organized as follows:

- The fundamental objective of the financing plan for capital facilities and for ongoing operations is stated
- Sources of financing are described.
- An order of preferences for sources of financing is presented.
- Policy issues are described These issues must be solved before the financing plan can be implemented.

1.4.2 Overall Objectives for Financing Plan

The key objective of the financing plan is to provide as much certainty as possible that capital facilities and ongoing operations can be financed, without destroying the underlying economics of the proposed land uses at Fort Ord.

Experience with large development projects in general and base re-use projects in particular has demonstrated that certainty about sources of financing for infrastructure is a key ingredient to success. If land developers - particularly developers who have the option to select projects throughout the United States - have full assurances about what will be required of them, they will purchase land or make other economic decisions at a price that will permit a profit to be made. On the other hand, if sources of financing (or other uncertainties that will affect development) exist, developers will either forego the opportunity to participate in the reuse of Fort Ord or will exact financial terms that may have an adverse physical result on the affected local government.

A recommendation is presented subsequently that FORA depend only on sources of financing that are certain or highly likely. This recommendation is motivated primarily by a desire to offer as much certainty as can exist in major development projects in the 1990's. If relative certainty about financial and other terms and conditions are stated at the outset, development organizations that might not otherwise consider a project in California will give the reuse potential of Fort Ord due consideration.

1.4.3 Disclaimer

The present report is being published at a point in time when certain key facts about the territory within Fort Ord are not yet known. For example, the potential acceptability of Cities and the County of Transportation Impact Fees is not yet been tested.

Accordingly, the recommendations in the present section are subject to change, depending on facts that will become known as other tasks in the FORA reuse planning program are completed.

1.4.4 Sources of Financing

The present section deals with alternative sources of financing that might be considered. Section 1.5 presents the recommendation for the preference order in which these potential financing sources should be used.

1.4.4.1 Federal and State Funding

The issue of the appropriate assumption to be made about external sources of financing over the next 20 years is a particularly vexing one. It is extremely difficult to make forecasts or even plausible conjectures about new sources of financing that may become available from the Federal and State governments for use by local governments in California.

The quest for a conservative and realistic financing plan suggests that the financing plan should include only future financing sources that can readily be foreseen. Unfortunately, a conservative or pessimistic approach has a way of becoming a self-fulfilling prophecy.

As a specific example, if only limited financial support is assumed from the State Transportation Improvement Program (STIP), then locally-controlled sources of financing must be used in the absence of State/Federal funding. This assumption will potentially have a negative impact on Monterey County's priorities compared to other STIP-eligible projects in California when future STIPS are adopted.

After extensive discussions with knowledgeable key informants at the local, State, and Federal levels, a conservative/pessimistic stance was assumed.

- Federal/State funding would be available only to fulfill existing commitments.
- Funding for transit operations and fleet replacement would continue at its present level (in terms of per capita real dollar) through Fiscal Year 2015/16.
- There is no basis for an assumption that federal support for Amtrak will increase over the planning horizon.
- Financing for the Fort Ord transportation system will depend significantly on development-related sources of financing such as development impact fees, special

benefit assessments and (possibly) special taxes levied by a Mello-Roos Community Facilities District. (Development-related financing is discussed extensively in a following section.)

Every effort should be made to prove the conservative/pessimistic scenario incorrect. Every effort should be made pursue any and all funds available from the federal government, the State of California, public/private partnerships, etc. If these fund-raising efforts are successful, dependence on development-related financing (described subsequently) can be reduced.

1.4.4.2 Local General Funds

Traditionally in California, the General Fund of cities and counties has been available to pay for public capital improvements as well as for ongoing operations. In the 1990's the General Fund surplus to pay for capital facilities is the exception - and frequently the rare exception - rather than the rule. For the moment it is assumed that General Fund financing from the affected cities or from Monterey County will not be available. If the fiscal analysis that will be prepared in Task 4.2.13 indicates that development on the territory within Fort Ord will produce a General Fund surplus, then this assumption is subject to revision.

1.4.4.3 New Sources of Financing

The possibility of establishing entirely new sources of financing in Monterey County has been discussed previously. For example, the Transportation Agency for Monterey County (TAMC) established a Transportation Financial Options Ad Hoc Committee to study the issue of new sources of financing for roads and transit. After reviewing the work of the Ad Hoc Committee and after discussions with key informants, the consultant team concluded that success in establishing new sources of financing that would be available at Fort Ord was low.

The probability of the potential ballot measures to raise motor vehicle fuel tax, sales tax on fuel and general sales tax or to approve the innovative Vehicle Miles Traveled (VMT) measure may be lowered if roadway improvements to permit the reuse of Fort Ord are included among the projects to be financed. Voters who are currently resident in Monterey County may ask, "Why should we pay for roads for those new people?"

If any of the financing sources being considered by the Ad Hoc Committee are enacted, the funds will not be sufficient to meet travel demands of the existing Monterey County population. Projects with an alternate source of financing (e.g., development-related financing) will not fare well in the competition for new funds.

1.4.4.4 Rate-Based Financing

In California, capital and operating expenses for municipal-type enterprises such as water supply and waste water treatment are financed from user charges, frequently referred to as "rates." Rate-based financing refers to any form of financing in which the ratepayers are charged the full cost for the service being provided and (with increasing frequency) are also charged for the capital investment required to finance public facilities.

During the Fort Ord Reuse Infrastructure Study (FORIS), a clear direction emerged that water supply and distribution and wastewater collection and treatment would be financed insofar as possible from the rate base for these services. A detailed organizational and economic analysis was prepared and is assumed in the present report[1] to be adopted FORA policy.

1.4.4.5 Fuel Tax

Traditionally, the tax on motor fuel shared between the State of California, county governments, and city governments was used in part to pay for capital improvements. This has generally not been the case for at least ten years. Jurisdictions are hard-pressed to maintain their target standard of road maintenance with their fuel tax allotment.

It is assumed that the fuel tax shared between the State of California and cities and counties in California will continue to be collected under existing allocation rules and the existing tax rate. The fuel tax to Monterey County and its cities will continue to grow as growth and development takes place, but real per capita purchasing power will decline, given the assumption that the tax rate per gallon does not increase. Fuel tax will be devoted to maintenance and replacement of the existing system and will not be available to finance the capital improvements that are being suggested in the present study. If subsequent analysis indicates that the fuel tax will not be consumed by future road maintenance requirements, the issue will be reconsidered.

1.4.4.6 Public/Private Financing Partnerships

The term "public/private financing partnership" can be defined broadly as any technique for financing public improvements that involves some degree of cooperation between a public agency and a private party. The definition is narrowed somewhat in the following text to include only forms of public/private financial cooperation that are intended to further the economic development objectives of the Fort Ord Reuse Plan.

Forms of public/private financing arrangements that have been used in California cover a wide range of levels of cooperation. For example, a minimal level of cooperation occurs when landowners advance funds to build a public improvement project. The public agency enters into a

[1] Fort Ord Reuse Authority. June 19, 1995. *FORA: Water Supply Mission Organizational Report and Economic Analysis.* Prepared by Reimer Associates and Administrative Budget Counseling. Edited by James Feeney, FORA Staff Engineer.

reimbursement agreement with the landowners to reimburse them for a portion of the cost, when other landowners who benefit from the public improvement apply for authorization to develop their property. Common examples are a roadway extension that provides access to a particular property or a sewer line extension that permits the property to be developed.

A higher level of public/private cooperation is required when a public agency enters into a disposition and development agreement with a private party. The agreement specifies standards of development, business terms, etc. This form of public/private cooperation has been used most frequently by redevelopment agencies in California, but the model applies more generally.

Perhaps the most detailed level of public/private cooperation exists when a private entity constructs and operates a public improvement, within guidelines and business terms supplied by a public agency. An example that has recently occurred in California is the construction of toll roads that will be operated by a private entity for a fixed number of years.

In each of the above examples, two characteristics are present. First, the objectives of a public agency are being served. Second, there must be enough economic incentive in the arrangement for the private party to incur both the cost and the risk.

The term "partnership" should not be interpreted as implying equality of representation in the partnership, or even a complete matching of goals and objectives. As with any "partnership", the "partnership agreement" specifies the authorities and responsibilities of each party. A public/private financing partnership in no way implies any surrendering of a public agency's ability and responsibility to protect the public interest.

All of the development-related financing arrangements that are described in the following section are public/private financing partnerships. Even the forms of financing described previously (e.g., state and federal grants) can be structured so that the financing leverages economic development objectives.

Experience elsewhere in California has confirmed that a public agency can facilitate economic development by offering incentives, at the same time that requirements to finance public improvements are imposed. As one example, consider a situation where an assessment district will be used to finance public improvements and where some of the land uses within the assessment district would create employment opportunities or foster other economic development objectives. It would be possible for the public agency to offer an incentive in the form of reduced assessments, offset by use of redevelopment tax increment. The redevelopment tax increment would offset the special assessment that would otherwise have been due from a land development project that meets economic development objectives.

Public/private partnership financing is particularly useful to facilitate the reuse of Fort Ord. The following characteristics applicable to reuse of Fort Ord should be noted

Disclosure. An absolute key to the successful development of Fort Ord is complete and total disclosure of the terms and conditions (including terms for financing public improvements) that

will be imposed on development. There must also be complete disclosure of the land use entitlements that developers will receive. With complete disclosure, the public agency and the developer can negotiate business terms that meet public objectives and that are economically realistic.

Land Value-Based Financing. If disclosure (as described above) is complete, reuse of Fort Ord will be aided by a unique situation. Before land is conveyed to FORA and ultimately to local governments with land use jurisdiction over territory within Fort Ord, the terms and conditions for financing public improvements will be known in detail. Also, future land use entitlements, development standards, etc. will be known.

Accordingly, a private party can offer a price for land within the jurisdiction of Fort Ord in its "as is" condition with a high degree of certainty about the costs that will be incurred to bring the land from its "as is" condition to a condition where the land is marketable to a builder or a final user. The private party will have a high degree of knowledge about the price that could be offered for the land "as is" and still meet profit objectives when the land is sold to a final user.

If some form of partnership financing is negotiated between a public agency and a private party, the economic consequences of this partnership arrangement can be factored into the price that is offered for the land in its "as is" condition. As one example, a reimbursement agreement might be negotiated wherein (say) a road improvement is programmed in an early year of the planning period to provide access to a property that has high development potential. The initial developer might be offered a reimbursement agreement wherein the ultimate owners of other property that benefit from this roadway improvement would make reimbursement. (There are provisions under California law to require that reimbursement include the payment of interest to the party being reimbursed. The desirability of this clause depends on the particulars of the situation).

A private sector buyer of land will factor in the net present value of any required investment in infrastructure, when the purchase price is negotiated. The requirement for advancing funds by a private party could also be factored into the negotiations of terms of an Economic Development Conveyance.

An extensive discussion of the economics of development-related financing begins on page PFIP 1-10.

Gap Financing. Major land development projects frequently impose the highest level of risk and offer the highest returns to early-stage developers. The unique and rather spectacular location of the territory within Fort Ord and the presence of an open-and-operating campus of the California State University will minimize certain private sector development risks. Nonetheless early development at Fort Ord will require an expectation of a return adequate to the risk involved.

A form of public/private partnership financing that may be applicable to the reuse of Fort Ord is an extension of the example used above, where a developer advanced the cost of a single improvement. A situation may be found to exist at Fort Ord wherein development simply will not occur unless a developer makes a significant initial investment in public improvements. This

investment would be in addition to the ordinary costs associated with development. If this is the case, it would be appropriate to enter into a disposition and development agreement between a public agency and a private party that recognized both the necessity for "gap" financing and the return that the risk of providing significant up-front investment would require.

The concept of "gap financing" with adequate economic regards for the risk incurred is applicable to the terms of the original Economic Development Conveyance as well as to subsequent transfers of ownership. Initial financing from the U.S. Government, particularly to finance the costs of remediation of existing deficiencies, may be essential to the successful reuse of Fort Ord. Payment terms under an Economic Development Conveyance can provide a fair and adequate return for this additional investment by the U.S. Government.

1.4.4.7 Development-Related Financing

The Fort Ord Reuse Financing Plan will depend significantly on development-related financing. Accordingly, this technique of financing is discussed extensively.

Definition: The term, "development-related financing" refers to revenues that are directly generated by growth and development. There are two generic classes of development-related financing. Development impact fees which are collected at or near the time of development can finance infrastructure if it is possible to stage infrastructure and not require major initial investments. This class of financing is described as "pay as you go."

The other development-related class of financing is municipal bonds that are sold to investors. The interest on these bonds is tax-free to the investor, and the proceeds of the bonds are used to construct public improvements. The bondholders are repaid over time, by assessment liens or special taxes paid by homeowners and businesses in the area of benefit. The common examples of development-related bonded debt that are currently used in California are special assessment bonds and bonds issued by a Mello-Roos Community Facilities District.

This class of financing is referred to as "pay as you use."

Development impact fees are the preferred method of financing if projects can be staged in pace with development and if very large or "big-ticket" public improvement projects can be avoided. The preference for development impact fees is based on the fact that the costs of issuing bonds (e.g., underwriters' discounts, bond counsel's legal fees, reserves or credit enhancements) are avoided. Also, every effort can be made to structure a bond issue such that landowners will pay their assessment liens or taxes in a timely manner rather than let the bonds go into default. If there is a default on assessment or tax payments, foreclosure procedures are initiated by the issuing public agency. Assuming there is a reasonable market value for the land, the delinquent assessment or special tax obligation is paid by the new buyer.

Development-related bond issues in California are commonly structured such that absolutely no legal liability falls on the issuing agency if the bonds go into default. Nonetheless, the name of the issuing agency is in the largest type font on the face of the bond. There is at least some

perception of risk to the credit standing of the issuing agency if default occurs. This risk (however slight) is avoided if development impact fees are used.

While development impact fees and development-related bond financing appear to be quite different, their economic structure is quite similar. They both depend on a reasonable market value of the land, after the financed public improvements have been constructed. In the case of development impact fees, a reasonable buyer must perceive a probability of reasonable rate of return on invested capital, after the development impact fees have been paid.

In the case of bonded debt, there are two requirements for land value. First, the developer must anticipate that buyers will discount their willingness to pay for a finished real estate product because of the existence of an obligation to pay bonded debt. The cost of bringing land to a state of readiness for development, plus the burden of assessments or other forms of bonded debt, plus an allowance for developer profit, must be equal to or less than the market value of the land.

Secondly, since the public agency is not required to "make good" on a bond issue that goes into default, municipal bond underwriters and, ultimately, bond buyers will look to the underlying value of the land and compare this land value with the total bond obligation. An acceptable minimal relationship between bond obligations and land value must be preserved.

Under today's financial conditions a multiplier of 3.0 is considered minimal and a multiplier of at least 4.0 is preferred by bond buyers.[2]

Two-Tier Fees: It is frequently the case that public improvements cannot be sized precisely so that added capacity exactly meets the added demand. Capacity is normally added in discreet increments. For example, a street must be widened in increments of full lanes and this frequently provides more capacity than would absolutely require to meet the Level of Service (LOS) target by the end of the planning period.

The financing plan for the Fort Ord Reuse Plan can deal with this situation by dividing the entire planning period into subperiods. A development impact fee is adopted for each time period within the overall twenty-year planning horizon such that the fee is adequate to meet the LOS and timing standards for development which occurs during that time period. For example, if the cost per Dwelling Unit Equivalent is higher for the first seven years, then a fee is adopted that will provide adequate cash flow for this seven-year period.

In the situation described above, even though capacity in excess of demand for the (presumed) seven-year period was unavoidably produced, this capacity will also benefit those who develop after Year Seven.[3] Accordingly, a fee is collected until the capacity has been consumed and is used to reimburse those who unavoidably paid a higher fee during Years One through Seven.

[2] Land value is measured at the point when the bond proceeds have been used to build public improvements and these improvements are in place. If the multiplier is 4.0 this means that the land value that secures payment of the bond issue must be at least four times the face amount of the bond issue.

The two-tier financing technique summarized above has been used in other jurisdictions in California (e.g., in the Antelope Area of unincorporated Sacramento County and in the City of Turlock).

In the case of the Fort Ord Reuse Plan, the issue is particularly important. Significant roadway capacity will frequently be "left over" at the end of the entire twenty-year planning period. In other words, newly expanded roadways will be above the LOS target at the end of Year 2015. Development that occurs after the end of the present planning period will benefit from the capacity that was provided during the present planning period. This was unavoidable because, as noted in the example presented above, a street must be widened in increments of full lanes.

FORA should re-evaluate growth, trends and forecasts regularly and should impose a development impact fee on those developers who will utilize the excess capacity of a facility, if any has been created. The money collected from these developers should be placed into a development fee account and, at regular intervals, after the facility is built, may be distributed to the developers who paid the original development impact fee used to construct the facility. This distribution would be in proportion to the original fee contributed from each developer, plus an allowance for interest from the date of contribution. Developers who wish to participate in this reimbursement program are expected to enter into an agreement with FORA. This agreement will generally provide that if future development occurs that would utilize excess capacity of a public facility, and if FORA is able to collect development impact fees from such development, then the developer would be reimbursed for a portion of the development impact fee that he or she has paid.

It should be understood that reimbursement is not guaranteed. In practice, a portion of the total fee collected in the early years is described as "Subject to Contingent Reimbursement" (STCR). If development continues to occur as expected after an improvement has been constructed, then a portion of the impact fee collected will be available to reimburse those paid the higher-than-average costs. If development does not continue after a roadway improvement is in place, then those who paid the higher fee will have paid a fair and equitable fee since the construction of additional capacity was unavoidable.

Although a two-tier impact fee would be levied under FORA's statutory authority, it would be collected by the local jurisdictions in the same manner as any other fee.

Economics of Development-Related Financing: There is a finite economic limit on the extent to which development-related sources of financing will be available at Fort Ord. This limit is established by the realities of the real estate market place.

Two initial principles must first be established.

[3] Herein lies the power of two-tier fees. If everyone paid the average, the improvement could be built only when the full cost of the improvement had been collected. In practical situations the Level of Service would have deteriorated to an unacceptable level before sufficient revenues had accrued.

In terms of the final incidence of the economic burden, there is little basic difference between a development impact fee collected at the time of development and a development-related tax or assessment collected over many years to repay bonded debt. The ability to pay an impact fee or pay an annual assessment/ special tax depends on there being economic use of land for which public improvements are being provided.

The second principle concerns the final incidence of development impact fees or assessments/special taxes. Colloquially, "Who pays impact fees?"

The assertion is frequently heard that impact fees are passed on to the homeowner or other consumers. In general, this is neither theoretically nor practically the case. In the specific circumstances surrounding reuse of Fort Ord, this is almost certainly not the case.

In the most simple (and simplistic!) economic model, development-related charges, whether impact fees, assessments, or special taxes, are capitalized by the marketplace in terms of a lower value of underdeveloped land. The reasoning is as follows:

- In a perfect market, with perfect information, the value of land ready for development is set by the marketplace. Competing projects throughout the region (whether or not they are burdened by development charges) establish market value.

- Both financial capital and entrepreneurial skills are highly mobile. A developer has no incentive to accept reduced profit margins at Fort Ord, particularly given perceived risks of a pioneering form of development. Targets for profit margins will not be lowered.

- Accordingly, sophisticated developers will buy land at a price that permits them to pay development-related charges, maintain profit margins, and sell land in a ready-to-build state at the prevailing market price.

The Residual Land Value (RLV) is the value of the land after subtracting an allowance for profit, a sales commission, allowance for on-site development costs, and allowance for all forms of development-related financing that will be imposed to pay for infrastructure and other public improvement.

There is an absolute upper limit to the total financing capacity available from development-related financing for all public improvements that are competing for development-related financing. That upper limit is the amount of financing that would drive the Residual Land Value down to zero.

In most circumstances, neither the market place nor political realities would permit a financing plan that literally consumes the residual market value of undeveloped land. In the present circumstance, it may be both practical and necessary to devote all or virtually all of the value of undeveloped land to finance the public improvements that will make reuse of Fort Ord possible. Market values of land in a ready-to-build state are set by market forces, not by wishes. Costs to achieve this ready-to-build state are statements of fact, once a level of service for transportation

and other public services has been established. The residual value of the land is the market value minus the costs that must be incurred to make the land marketable.

In a very real sense, undeveloped land is "worth what it's worth!" If the cost to demolish existing structures and provide infrastructure consumes all or nearly all of the residual land value, this is a fact that even the federal government is powerless to counter.

In many cases the economic model described above is excessively simplistic. In a strong market, with strong buyer demand, it may indeed be possible to pass forward development impact fees in the form of higher home prices. Decisions made by a couple in model homes or in sales pavilions often involve more than calculations of expected net present values of cost streams.

Practical observations in projects elsewhere in California suggest that even in strong markets the model for the development and sale of commercial and industrial lands more clearly approximates the simple model described above. Land is developed by sophisticated buyers with full knowledge of market values. Such buyers know the economic effect of all costs (including development-related charges) on market value of raw land. In other words, observations of behavior transactions involving commercial and industrial property verify that development-related charges are capitalized in the form of lower land values for raw, undeveloped land.

The specific circumstances of Fort Ord suggest that a model of development-related costs capitalized in the form of lower land values will be applicable to <u>all</u> lands that are ultimately in private ownership.

Assume for the purposes of analysis that lands will be conveyed by the federal government to the Fort Ord Reuse Authority under an Economic Development Conveyance (EDC). These lands will ultimately be conveyed to private developers, under the terms of the Fort Ord Reuse Plan and appropriate disposition and development agreements. Developers with the sophistication and financial strength necessary to participate in this form of redevelopment will most certainly be aware of the underlying economics of land use. They will acquire land and participate in the redevelopment process only if the overall economics of each development project permit development-related charges to be paid while maintaining a profit margin appropriate to the risks being incurred, given the developers' estimate of land in a ready-to-build condition.

Another characteristic of the economics of development at Fort Ord should be noted. Given proper information and communications, a potential developer of land at Fort Ord will not be as sensitive to comparative levels of development impact fees in other jurisdictions in the market area, as is usually the case. In the conventional case, when land for development is being purchased from private owners, a developer will be very concerned about the level of development impact fees in a jurisdiction, compared to fee levels in other jurisdictions. High levels of impact fees will ultimately result in lower values of raw land, but an individual landowner may decide to delay sale to a developer. This wait can be as long as the time required for the next generation of landowners to be in a position to make decisions about the land.

In the case of Fort Ord, however, local governments, as the "interim landowner," can negotiate disposition and development agreements with sophisticated developers in the context of the economic realities that apply at Fort Ord. Transactions will close at prices for raw land that are realistic, given market values of land in a ready-to-build condition and given the cost to bring land from its current condition to a ready-to-build condition.

Development Exactions: Development exactions at the time each final subdivision map is recorded are a form of development-related financing that has become very popular in certain areas of California. If a developer does not have land-use entitlements, there have been many instances where a public agency will exact commitments to finance infrastructure or provide other amenities, as a condition of approval.

The use of exactions might initially appear to be a particularly fruitful possibility at Ford Ord, given that no one has development entitlements. Even the moderating influence of the recent Supreme Court case of Dolan v. Tigard may not be applicable. Mrs. Dolan had the necessary zoning for her property when exactions were demanded. A would-be developer at Fort Ord would not have these entitlements.

Whatever the superficial attractions of exactions as a tool of development or redevelopment, they are (at least in the opinions of the authors of the present report) an extremely hazardous form of infrastructure finance.

Particularly in the early years, it will be very important that developmental projects at Fort Ord become "success stories" that can be advertised in the national real estate market. Given California's national reputation as a place where development is difficult, a vigorous program of development actions will hardly be perceived as an incentive to come to Fort Ord and assume the risks of development.

The same comments might be made about the effects of exactions agreed upon in the original disposition and development agreement as was made about development impact fees or development-related bond financing. None of these techniques of financing are thought to add to the profitability of development projects.

In fact, if the Fort Ord Reuse Plan is described and disclosed properly, early-on exactions, development impact fees or development-related bond financing will not be an impediment to development. If land values after public improvements are in place are high enough to justify payment of the development-related financing -- a fact to be confirmed during the FORA re-use study -- there will be little or no disincentive to undertake a development project. A sophisticated developer will insist on paying a price for raw land that will permit the development-related financing to be paid, and a reasonable profit to be made, as compensation for investment and development risk. If the project is part of an Economic Development Conveyance (EDC), the terms of economic participation between the developer, the local agency and the federal agency can be negotiated such that they are economically realistic, given expected land values.

Put more bluntly, all concerned can "buy right" if they can reasonably estimate post-redevelopment market values and if all of the terms and conditions that will be imposed on the developer are known before a final agreement is reached.

A Cities-County Road Impact Fee: A conclusion has emerged from Task 4.2.3 that major roadway projects to serve the territory within Fort Ord are not necessarily located physically within the boundaries of what was Fort Ord. Similarly, roadway facilities that are located physically on Fort Ord serve development in other jurisdictions (i.e., off the Fort Ord territory) in Fort Ord Transportation Impact Area.

A key requirement for development impact fees[4] in California is that a valid nexus exists (in this case) between a roadway capital improvement and all of the development that contributes to the demand for this improvement. Accordingly, if development impact fees are to be used to finance roadway improvements affecting the territory within Fort Ord, it will be necessary to establish a cities-county development impact fee involving the participation of all the cities in Fort Ord Transportation Impact Area and Monterey County itself. The work that was completed in Task 4.2.3 provides the numerical basis for an appropriate assignment of financial responsibility between development on Fort Ord and development elsewhere in Monterey County.

Cooperative cities-county fees are not without precedent in California. For example, a cooperative arrangement exists between Stanislaus County and its cities. This does not translate into a statement that cities-county fee programs can be implemented easily. This point is discussed further on page PFIP 1-23.

1.4.5 Redevelopment Tax Increment

California has decades of experience with a form of financing that is particularly applicable to areas undergoing redevelopment. Total property tax collected in Monterey County is shared between the applicable city (if the area is in a city), the applicable school districts, and a number of Special Districts. A complex formula, developed after Proposition 13 was passed, controls the manner in which annual change in taxable value and resulting property tax is shared among the taxing agencies. Redevelopment tax increment is based on the following sequence of steps:

- At a given point in time (normally when a Redevelopment Area is established), the allocation of property tax revenues among the taxing entities is noted. The amounts to each agency are referred to as the "frozen base".

From that point forward, any increase in total property tax revenues goes not to the various local governments but to a redevelopment agency. The redevelopment agency then uses this tax increment to accomplish the purposes of the agency's redevelopment plan. Normally, twenty percent of revenues must be allocated to housing programs.

[4] The required findings for a valid development impact fee in California are summarized in Government Code §66000 et seq.

There is an apparent particular advantage to the use of redevelopment tax increment to finance roadways and other public improvements on Fort Ord. The property tax base is currently zero because the land is owned by a federal agency. If a redevelopment area is formed prior to a sale to a private owner or other entity subject to property taxation, the entire property tax revenue (measured from a frozen base of zero) would apparently be available for purposes of the redevelopment agency.

This apparent strength is, in fact, a weakness. The redevelopment agency may indeed have a fruitful stream of tax increment to use for redevelopment purposes, but the other local governments continue to be responsible to provide for ongoing operations. There are numerous examples in California where a city with a redevelopment agency finds itself to be facility-rich and program-poor. For example, funding is adequate to finance a new police station, but funding is scarce in the extreme to pay the police officers who staff this new station.

An aggressive use of redevelopment tax increment will be recommended as a source of financing for roadways and other public improvements if (and only if!) the fiscal analysis being done by the FORA re-use team confirms that local government revenues other than the property tax will be adequate to support the ongoing program of each jurisdiction.

As of the date of the publications of this report, the fiscal analysis indicates that property tax increment will not be available to fund Base-wide facilities. The entire property tax will be required to pay for the cost of on-going services.

1.4.6 Benefit Assessments for Maintenance

The use of benefit assessments (sometimes incorrectly referred to as "parcel taxes") to maintain various facilities has a long history in California. Benefit assessments were traditionally used for local programs that clearly benefit abutting property, such as maintaining street lights or roadway medians. In fact a key enabling statute is titled the Landscape and Lighting Act of 1972, Street and Highways Code Section 22500.

In recent years the breadth of purpose and the physical location of activities that have been construed to provide a local benefit has expanded greatly. For example, a recent court case permits the use of a benefit assessment to maintain a park that is located a significant distance from the properties that were found to benefit.

A clear candidate for the use of a maintenance assessment district in the Fort Ord Reuse Plan is the annual cost of maintaining and operating the Multispecies Habitat Management Plan (HMP)[5] for the territory within Fort Ord. Successful implementation of the HMP will provide a clear

[5] Zander Associates and The Center for Natural Lands Management. July 1995. *FORA Habitat Management Requirements.* Prepared for the Fort Ord Reuse Authority

benefit to all local governments with jurisdiction of lands within Fort Ord. It is recommended that ongoing costs of the HMP that are not borne by the Department of Interior, Bureau of Land Management (BLM) should be financed by a uniform benefit assessment collected over the developable areas within Fort Ord.

Subsequent legal research may raise questions about whether existing statutes permit a benefit-assessment district to maintain wildlife habitat. There may also be a question about whether a benefit assessment can be levied on lands that have not yet developed. If either source of uncertainty arises, enabling legislation should be sought immediately to provide for a maintenance assessment procedure that is applicable to the circumstances of the land within the jurisdiction of Fort Ord.

1.4.7 Financing to Remedy Existing Deficiencies

In general, development-related financing cannot be used to finance an existing deficiency in capacity or function of a public facility. Development-related financing can be used only to provide new capacity to serve new development.

In the special circumstance of the territory within Fort Ord, this generalization is not applicable. Any existing deficiencies within the Fort Ord boundary that are not remedied by the U.S. Army can be remedied using development-related financing. The key difference between Fort Ord and the conventional situation is that service capacity within the Fort Ord boundary is available to serve new users, once deficiencies have been remedied. In effect, new capacity is being provided through the act of remedying deficient facilities.

Deficiencies beyond the boundary of Fort Ord are not eligible for financing from development-related sources. This poses a significant difficulty since there are numerous existing deficiencies on the roadway system. Development-related financing can finance new capacity (e.g., on Highway 68) but a source of financing for the cost of bringing capacity to the point that existing traffic could be served at the target level of service, must be financed from some source of financing other than a development-related source of financing.

Selecting a source of financing for existing roadway deficiencies outside of Fort Ord is not within the scope of the present task. The effort cited previously by the Transportation Agency for Monterey County is the best current hope for a program that will determine how existing deficiencies should be financed.

1.5 PREFERENCE FOR SOURCES OF FINANCING

The previous section discussed sources of financing that could be considered for capital facilities and for ongoing operations. The present section presents specific recommendations as to sources of financing. The section also mentions certain financing principles.

1.5.1 A Commitment to Maintenance

Financing for new public service capacity should not be at the expense of expenses for operations and maintenance. Further, recognition should be given to the fact that additional capacity (e.g., roadway capacity) to serve reuse of Fort Ord will itself require maintenance during the planning period through 2015/16. It is recommended that provisions for the financing of operations and maintenance be made before any decision made about the financing of capital facilities. In other words, operations and maintenance is, in effect, taken "off the top" before an evaluation is made of capacity to finance capital improvements.

This recommendation is particularly significant for road maintenance. Experience with fiscal studies elsewhere in Monterey County and elsewhere in California suggest that the cost to maintain the existing road network plus new capacity will consume the fuel tax revenues that will become available.

1.5.2 Base-Wide and Local Facilities

The Fort Ord Reuse Authority has a role in financing capital improvements for base-wide facilities only. Government Code δ67655 includes the following definition:

> (b) *"Base-wide facility" means a public capital facility which, in the judgment of the [Fort Ord Reuse Authority] board is important to the overall reuse of Fort Ord, and has significance beyond any single city or the unincorporated area of the county.*

Public capital facilities required for the reuse of Fort Ord that do not meet the definition of "base-wide facility" are defined as "local facilities."

The financing plan to support the Fort Ord Reuse Plan that is being prepared by FORA is concerned only with Base-wide facilities. However, the cost of local facilities required for the reuse of Fort Ord (e.g., neighborhood and community parks in each jurisdiction where the demand is created by growth and development of land within Fort Ord) is presented, even though preparing a financing plan for local facilities is not a FORA responsibility. As a practical matter local governments will very probably select a form of development-related financing. Accordingly the burden of financing local facilities as well as the burden of financing base-wide facilities must be considered before a decision can be made about the economic reasonableness of facility financing, compared to market value of land that will exist after public facilities are in place.

1.5.3 Hierarchy of Financing Preferences

The following statement of preferences for sources of financing was originally stated in the document; Fort Ord Reuse Group. *Preliminary Draft. Summary of Base Reuse Plan,* February 8, 1994, pages 19-20. This order of preference is recommended for the Financing Plan of the Fort Ord Reuse Plan.

Rate-based financing was not included in the original list of preferences. A statement is added to the list, in italics.

> "Federal Funds. Federal grants and direct Federal investment are being pursued actively and aggressively. In addition, every effort will be made to encourage the Federal Government to make direct investments in Fort Ord to remedy existing deficiencies or needs for remediation.
>
> State of California. Economic development programs or other grant programs available from the State of California may be highly relevant to the process of reusing Fort Ord. Every opportunity will be explored to consider such sources of financing.
>
> If Federal and State funds are insufficient, then the preference for locally-controlled financing is shown in the following paragraphs. Particularly in the early years after Fort Ord goes into private ownership, Monterey County and the affected cities may suffer fiscal distress. If cannot realistically be assumed that General Fund revenues will be available to finance Infrastructure at Fort Ord or that the local governments can participate in Federal or State loan programs unless the lending agency accepts as the sole source of payment a special tax on the land that benefits from the investment.
>
> - *Financing obtained from, or secured by, a consumer rate-base (e.g. water or sewer rates) will be used wherever practical. Rates will be used to finance capital facilities and to pay the annual cost of operations and maintenance.*
>
> - Development impact fees, collected at or near the time of development, will be used wherever practical to finance the expansion and capacity that are necessary to accommodate the demand for new capacity at Fort Ord. Demand should be met as closely as practical to the time when development will occur.
>
> - Enhancements to development impact fees, such as borrowing (with interest) between development impact fee accounts or employing other comparable devices, will be used if traditional development impact fees, considered alone, would not produce sufficient cash in time to build each public improvement when it is required.
>
> - Development-related bond financing (e.g., conventional special assessment bonds or bonds issued by a Mello-Roos Community Facilities Districts) will be considered. Bonds will be used only if conventional development impact fees, or enhanced versions of these development impact fees, are incapable of providing sufficient cash flow to fund an improvement when it required. An example would be a major expansion of water supply that cannot practically be stage in small increments and that must be available early in the planning

period, because a reliable water supply must be available before development can occur.

- Redevelopment tax increment may be particularly applicable to reuse of Fort Ord, since the taxable assessed value of the military base is zero. As soon as a parcel comes under private ownership, the Monterey County Assessor's estimate of taxable assessed value is, in effect, the "increment" above the starting point of zero. Accordingly, if the parcel is in a redevelopment area, some or all of this increment (taxed at the 1 percent base tax rate) could be available for purposes of the redevelopment agency. At the same time, each local government will bear in mind that property tax that is not available to support the cost for ongoing services such as law enforcement, fire protection and general government."

All of the forms of development-related financing (e.g., development impact fees, redevelopment tax increment) in the list will require the types of cooperation that are essential to public/private financing arrangements. The cooperation intrinsic to a disposition and development under a redevelopment-type arrangement is an obvious example. Development-related bond financing requires either landowner consent or the absence of a landowner protest. Formation of a financing district virtually always involves negotiations between a public agency and the affected landowners. Even development impact fees, which can be imposed by ordinance, require an assessment of economic realities as viewed from the private sector.

At any time that public/private financing arrangements are being negotiated, the public agency can be mindful of short-term and long-term economic development objectives that would be served. For example, a project that provides employment opportunities and strengthens the local tax base can be aided by a restaging of public improvements in the Fort Ord Reuse Plan CIP. If necessary, additional financial incentives (e.g., offsetting development impact fees that would otherwise be due with funds available because of redevelopment tax increment) can be considered.

1.5.4 Recommendations For Financing

The recommendations for sources of financing for each class of base-wide facilities is summarized in Table PFIP 1-2.

Table PFIP 1-2
Recommended Sources of Financing

Facility Class	Recommended Source of Financing for Base-Wide Facilities	
	For Capital Investment	For Annual Operations
Water	Rate-based (Note 1)	Rate-based
Sewer	Rate-based (Note 1)	Rate-based
Drainage Existing Facilities	Tributary Polygon Impact Fee (Note 1)	Tributary polygon benefit assessment
Drainage New Facilities	On-Site cost borne by developer	Drainage facilities maintained by landowner (see Note 2)
Roads	Cities-County Roadway Impact Fee	Fuel Tax from each jurisdiction, supplemented if necessary by each jurisdiction's General Fund
Parks	Local financing from each jurisdiction (Note 3)	General Fund of each jurisdiction (Note 3)
Habitat Management	Base-wide assessment district	Base-wide assessment district
Police Facilities	Local financing	General Fund of each jurisdiction
Fire Facilities (see Note 4)	Base-wide development impact fee	General Fund of each jurisdiction under a cost-sharing agreement
General Facilities (Notes 3 and 5)	Local financing from each jurisdiction	General Fund of each jurisdiction

Note 1 A contribution is expected from the U.S. Army for infrastructure upgrades related to the POM Annex.

Note 2 The local jurisdiction will have a regulatory responsibility to assure that drainage facilities are maintained.

Note 3 No parks of more than local significance were identified.

Note 4 Alternative arrangements for fire services are currently being evaluated. If a new station or other capital item(s) are of Base-wide significance because of operating efficiencies or improved protection that effects more than one jurisdiction, the sources of financing will be as shown.

Note 5 Examples include administrative space, corporation yards, etc.

Note 6 In each case where a development impact fee is recommended, this is a preliminary recommendation. Cash flow considerations may require the use of bonded debt. See page PFIP 1-10 for a discussion of the use of bonded debt.

1.6 FINANCING POLICY AND TECHNICAL ISSUES FOR BASE-WIDE FACILITIES

Certain issues about sources of financing will require additional discussion with FORA staff and additional analysis. These issues are discussed in the following paragraphs.

1.6.1 Implementing the Cities-County Road Impact Fee

An explicit acknowledgment is appropriate. The task of implementing a road impact fee to be collected and expended cooperatively by Monterey County and by the cities in Fort Ord Transportation Impact Area is not an easy undertaking. Presentations and discussions should begin immediately to demonstrate to the affected local governments the essential nature of a source of financing that fairly distributes the cost of roads between land on Fort Ord and land not on Fort Ord.

At the same time, an effort must begin to clarify the administrative arrangements that would be appropriate, if a number of separate jurisdictions are each collecting a common cities-county road impact fee.

1.6.2 Transit - A Special Case

It is now well understood that, with certain very specialized exceptions, it is impossible to support the operations of a transit system from farebox revenues, let alone provide financing capacity for purchase or replacement of the vehicle feet and other required capital facilities. Financial support in addition to farebox revenues now comes from federal funds administered by the Federal Transit Administration (FTA) funds administered by the state of California, State Transit Assistance (STA), and a portion of the locally-collected retail sales tax administered under the Transportation Development Act (TDA).

Key informants expressed great pessimism about the long term (and short term, for that matter!) future of transit operating subsidies from the federal government. Surprisingly, given recent activity in the State legislature, key informants were confident that both STA and TDA were dependable and steady sources of revenue for transit operations and fleet replacement.

The recommended stance regarding transit finance is to avoid either a surrender into pessimism and negativism or a carrying forward of unrealistic expectations. The consultants' recommendation is that a somewhat optimistic assumption be made. Total funds available for transit operations per capita, measured in dollars of real purchasing power, will equal the per capita levels that were budgeted for the 1995/96 fiscal year. If predictions about a decreasing role in transit operations for the federal government come true, then his assumption will be optimistic. If new sources of financing for transit operations are enacted, then the assumption will be pessimistic. In either case, adjustment can be made on an annual basis to deal with the fiscal realities that emerge.

The practical result of the recommended assumption will lead to the following:

- The estimate of constant per capita revenues for transit operations (measured in constant dollars of real purchasing power) will be applied to the development forecast for Fort Ord that will be assembled by the FORA reuse planning team. The per capita revenue estimate will also be applied to the development forecast outside of Fort Ord that was developed by AMBAG.

- A reasonable estimate of farebox recovery (expressed as a percent of cost of transit operations and fleet replacement) will be made.

- A level of transit service and transit ridership will be prepared that is realistic, given the estimate of financing capacity for ongoing operations.

It should be noted that the above series of steps assumes that a reasonable rate of fleet replacement will be included in the operating budget. For the moment, it will be assumed that initial increases in the size of the transit fleet will be financed from some form of development-related financing.

1.6.3 Financing Subzones

Assembly Bill 1600, codified as Government Code 66000, et seq., incorporated into statute a description of what was and was not an acceptable development impact fee in California. The statutes describe what had been considered by practitioners to be recommended practice for setting development impact fees.

The most significant effect of Assembly Bill 1600 was to discontinue the practice of "averaging" impact fees over geographically- distinct areas of a jurisdiction. City attorneys and county counsel became more insistent that if there is a difference in facility cost (measured per dwelling unit or per Dwelling Unit Equivalent) that this difference be acknowledged. Financing subzones within a jurisdiction became more the norm than the exception.

This trend has been particularly apparent in the setting of roadway impact fees. Cities of even modest size frequently have four or more roadway financing subzones.

It is a virtual certainty that a technically valid Cities-County Roadway Impact Fee for an area as large as Fort Ord Transportation Impact Area will require multiple financing subzones. These subzones have not yet been selected, pending approval in principle of the use of a Cities-County Road Impact Fee.

The technical effort to define financing subzones should begin as soon as further study is authorized regarding the establishment of a Cities-County Roadway Impact Fee. The Cost Analysis Techniques utilized in the FORIS Report to accurately establish the nexus between land uses and infrastructure cost represents a major step in this direction.

1.7 PUBLIC IMPROVEMENT PROJECT LISTING

The following tables present the set of public improvement projects recommended for construction between 1996 and 2015. The tables are arrayed by infrastructure system category. With the exception of the Parks and Recreation Project Table which includes facilities under local jurisdiction, the improvement projects listed are those which support base-wide activities as "backbone" systems or are intended to implement base-wide goals. For example, provision for water meters applies to individual existing buildings but implements base-wide water conservation goals.

Costs include 15% contingency and 20% for engineering design, soil and field surveys, construction management and engineering supervision.

Following the project tables, maps of the land use polygons, the transportation analysis zones (TAZs) and the public improvement projects for the transportation, water and sewer systems are included for reader reference.

Table PFIP 1-3
Public Improvement Project Listing - Transportation System

35,205.42

REGIONAL TRANSPORTATION IMPROVEMENTS					SOURCES OF FUNDING					
					CAPITAL COSTS			OPERATING COSTS		
					CITIES - COUNTY			FUEL TAX		
					ROADWAY IMPACT FEE			+ GEN. FUND AS NECESSARY		
FACILITY	SEGMENT FROM	SEGMENT TO	IMPROVEMENT DESCRIPTION	TOTAL COSTS	JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
HWY 1 - HATTON CANYON	CARPENTER	- CARMEL RIVER	CONSTRUCT NEW FREEWAY	$43,000,000	NOT SIGNIFICANT *1*					
HWY 1 - NORTH COUNTY	COUNTY LINE	- CASTROVILLE	UPGRADE TO 4 LANE FREEWAY	$60,000,000	NOT SIGNIFICANT *1*					
US101 - PRUNEDALE	ECHO VALLEY	- ESPINOSA RD.	CONSTRUCT NEW FREEWAY	$236,000,000	NOT SIGNIFICANT *1*					
US101 - INTERCHANGES	BORONDA RD.	- AIRPORT	WIDEN FWY / IMPROVE INTCH.	$50,000,000	NOT SIGNIFICANT *1*					
HWY 68 - *T-1*	HWY 1	- SAN BENANCIA RD.	CONSTRUCT 4 LANE BYPASS FREEWAY *2*	$177,000,000	10.2%	18,050,000				18,050,000
HWY 156 *T-2-r*	CASTROVILLE	- US101	WIDEN TO 4 LANE EXPWY.	$50,000,000	68.0% *3*	34,000,000			34,000,000	
HWY 183	SALINAS	- CASTROVILLE	WIDEN TO 4 LANE EXPWY.	$59,000,000	NOT SIGNIFICANT *1*					
WESTSIDE BYPASS	US101	- BLANCO RD.	CONSTRUCT NEW 4 LANE EXPWY	$90,000,000	POST 2015					
BUS ACQUISTION *T-3*	NOT APPLICABLE		PURCHASE OF 15 BUSES (FROM FORIS REPORT)	$4,950,000	100%	4,950,000	1,650,000	1,650,000		1,650,000
			TOTALS	$769,950,000		$57,000,000	$1,650,000	$1,650,000	$34,000,000	$19,700,000

1 DOES NOT MEET NEXUS CRITERIA - ANGUS MACDONALD & ASSOCIATES.

2 FIGURE FROM CALTRANS.

3 BASED ON FORT ORD RELATED % OF FUTURE GROWTH - SKMG, INC.

OFFSITE ROADWAY IMPROVEMENTS FROM TAMC STUDY

SOURCES OF FUNDING

CAPITAL COSTS: CITIES - COUNTY ROADWAY IMPACT FEE

OPERATING COSTS: FUEL TAX + GEN. FUND AS NECESSARY

FACILITY	SEGMENT FROM	SEGMENT TO	IMPROVEMENT DESCRIPTION		JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
DAVIS ROAD T-4	SALINAS RIVER CROSSING		4 LANE BRIDGE NO ROADWAY WIDENING THRU 2015	$5,000,000	40.6%	2,030,000		0	2,030,000	
BLANCO ROAD T-5.1	RESERVATION ROAD	- SALINAS RIVER	WIDEN FROM 2 TO 4 LANES (4,500' X $320 / L.F.) - RD.	$1,440,000	51.2%	740,000	740,000			
	SALINAS RIVER	- ALISAL RD	WIDEN FROM 2 TO 4 LANES (20,700' X $320 / L.F.) (2,500' X $200/L.F.)							
			RD.	$7,120,000	51.2%	3,650,000		5,600,000		
T-5.2			BRIDGE	$3,440,000	51.2%	1,760,000				
			R.W.	$370,000	51.2%	190,000				
RESERVATION ROAD T-6	FT. ORD BOUNDARY	- BLANCO RD.	WIDEN FROM 4 TO 6 LANES WITH TURNING LANES (7,000' X $573 / L.F.)	$4,010,000	61%	2,450,000		2,450,000		
RESERVATION ROAD CONNECTION T-7	INTERGARRISON RD.		CONSTRUCT NEW 4 LANE ARTERIAL (4,500' X $756 / L.F.)	$3,400,000	82.3%	2,800,000	2,800,000			
RESERVATION ROAD T-8	INTER-GARRISON RD.	- WATKINS GATE	CONSTRUCT NEW 4 LANE ARTERIAL TO BARLOY CANYON RD. - RET. WALL	$500,000		410,000				
			(3,400' X $756 / LF.)	$2,580,000	82.3%	2,120,000				3,100,000
			(2,300' X $300 / L.F.)	$690,000		570,000				
DEL MONTE BLVD IN MONTEREY T-9	HWY 68 MONTEREY CITY LIMITS	- FREMONT BLVD	WIDEN TO 5 LANES INCLD. RIGHT-OF-WAY (ROW) ACQUISITION	$10,000,000	22%	2,200,000				2,200,000
DEL MONTE BLVD. IN MARINA	RESERVATION RD.	- FT ORD BOUNDARY	WIDEN TO 6 LANES (3,700' X $499 / L.F.)	$1,840,000	80.5%	1,480,000			1,480,000	
T-10			ROW	$3,730,000	80.5%	3,000,000			3,000,000	
HWY 218	NORTH/SOUTH RD.	- HWY 68	WIDEN TO 4 LANES (3,500' X $600 / L.F.)	$2,100,000	45.5%	960,000		960,000		
T-11			ROW	$1,490,000	45.5%	680,000		680,000		

FACILITY	SEGMENT FROM	SEGMENT TO	IMPROVEMENT DESCRIPTION		JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
CALIFORNIA AVE.	REINDOLLAR	- 3RD AVE.	CONSTRUCT NEW 2	$600,000						
	AVE.		LANE ARTERIAL							
T-12	(IN DCAG - ROUND 2)		<>	DCAG	100%		0			
CALIFORNIA AVE.	REINDOLLAR	- RESER-	UPGRADE & EXTEND AS							
		VATION RD	2 LANE ARTERIAL	$960,000	37.5%	360,000	180,000		180,000	
			(3,000 L.F. X $320 / L.F.)	$900,000	37.5%	340,000	340,000			
T-13			ROW							
CRESCENT	EXTENSION TO ABRAMS RD		CONSTRUCT NEW							
COURT	ABRAMS RD. TO PATTON		2 LANE ARTERIAL	$720,000	100%	720,000	720,000			
T-14	SCHOOL		<>							
			TOTALS	$50,890,000		$26,460,000	$4,780,000	$9,690,000	$6,690,000	$5,300,000

<> RIGHT OF WAY FOR OFFSITE IMPROVEMENTS IS EXPECTED TO BE SUPPLIED BY LOCAL JURISDICTIONS FOR PROJECTS WITH 100% CONSTRUCTION COST ASSIGNED TO FORT ORD.

ONSITE ROADWAY IMPROVEMENTS

SOURCES OF FUNDING

CAPITAL COSTS: CITIES - COUNTY ROADWAY IMPACT FEE

OPERATING COSTS: FUEL TAX + GEN. FUND AS NECESSARY

FACILITY		SEGMENT FROM	TO	IMPROVEMENT DESCRIPTION	TOTAL COSTS	JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
VARIOUS LOCATIONS	T-15	26± MILES OF INTERIM SAFETY AND REHAB. IMPROVEMENTS (FUNDED - DCAG - ROUND 1)		AS REQUIRED BY GATE OPENINGS	$1,100,000	100%	GRANT	GRANT			
VARIOUS LOCATIONS		IMPROVEMENTS FOR STREETS INTENDED FOR CONTINUED USE.		REHAB, SIGHT DISTANCE, DRAINAGE, GEOMETRIC, UPGRADE & SAFETY							
RESERVATION RD.	T-16.1	BLANCO RD.	- E. GARRISON	IMPROVEMENTS ON EXISTING STREET INTENDED FOR CONTINUED USE (29± MI. X $36.25 / L.F.)	$5,600,000	100%	5,600,000	2,800,000	2,800,000		
MONTEREY RD.	T-16.2	COE AVE.	- N.S. ROAD								
ABRAMS RD.	T-16.3	SALINAS ST.	- INTER - GARRISON								
INTERGARRISON AND 8TH ST.	T-16.4	ABRAMS	- E. GARRISON (LESS ENTRY SECTION)								
PARKER FLATS RD	T-16.5	GIGLING	- EUCALYPTUS								
COE AND EUCALYPTUS	T-16.6	PARKER FLATS	- FREMONT								
NORTH SOUTH RD	T-16.7	GIGLING	- BROADWAY (LESS FUTURE 4 LANE SECTION)								
1ST AVE.	T-16.8	12TH ST.	- 8TH ST.								
10TH ST.	T-16.9	1ST AVE.	- 3RD ST.								
3RD AVE.	T-16.10	CALIFORNIA AVE.	- 8TH ST.								
NORMANDY RD.	T-16.11	MONTEREY	- PARKER FLATS								
8TH AVE.	T-16.12	8TH ST.	- GIGLING								
COL. DURHAM RD.	T-16.13	N/S RD.	- 7TH AVE.								

FACILITY		SEGMENT FROM	TO	IMPROVEMENT DESCRIPTION		JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
VARIOUS LOCATIONS		INTERIM REHAB OF ARTERIALS TO BE REBUILT		WIDENING, BASE REPAIR, DRAINAGE IMPROVEMENTS RESURFACING, SIGNING, STRIPING AND TRANSITIONS (44,000 L.F. X $100 / L.F.)	$4,400,000		3,080,000				
IMJIN RD	*T-17.1*	RESERVATION RD.	- CALIF. AVE.			50.0%		550,000			
NORTH SOUTH RD.	*T-17.2*	BROADWAY	- SOUTH BOUNDARY RD.			54.0%			600,000		
2ND AVE.	*T-17.3*	11TH ST.	- 1ST ST.			72.3%		430,000			
INTER-GARRISON	*T-17.4*	7TH	- ABRAHMS RD.			85.0%			600,000		
EUCALYPTUS	*T-17.5*	NORTH SOUTH ROAD	- PARKER FLAT			100%		900,000			
VARIOUS LOCATIONS		"GATEWAY" IMPROVEMENTS AT ENTRY POINTS (IN DCAG - ROUND 2)		CONSTRUCTION OF NEW 4 LANE DIVIDED ARTERIAL ENTRANCES WITH LAND-SCAPING & ENTRY SIGNAGE							
IMJIN ROAD	*T-18.1*	CONTROL TOWER RD	- RESERVATION RD.	2,760 L.F.	$2,300,000	20.0%	460,000 + GRANT	460,000			
NORTH SOUTH ROAD	*T-18.2*	1ST ST. AT 2ND AVE.	- N/S RD AT - PX SERVICE STATION	3,300 L.F. + SIGNAL	$3,200,000	20.0%	640,000 + GRANT	640,000			
11TH ST.	*T-18.3*	12TH ST. GATE	- 2ND AVE.	1,200 LF.	$1,000,000	20.0%	200,000 + GRANT	200,000			
NORTH SOUTH RD.	*T-18.4*	S. BOUNDARY RD	- HWY 218	1,000 LF. + SIGNAL	$1,200,000	20.0%	240,000 + GRANT	240,000			
INTER-GARRISON RD.	*T-18.5*	NEW INTERSECTION WITH RESERVATION RD.		1,000 L.F. REALIGN & SIGNAL	$1,500,000	20.0%	300,000 + GRANT	300,000			
12TH ST.	*T-19*	12TH ST GATE	- CALIFORNIA AVE.	CONSTRUCT NEW 4 LANE ARTERIAL (5,500 L.F. X $755 / L.F.)	$4,150,000	50.0%	2,080,000	2,080,000			

FACILITY	SEGMENT FROM	SEGMENT TO	IMPROVEMENT DESCRIPTION		JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
CALIFORNIA AVE. *T-20*	3RD. AVE.	- 12TH ST.	CONSTRUCT NEW 2 LANE ARTERIAL (2,100 L.F. X $602 / L.F.)	$1,270,000	37.5%	480,000	480,000			
8TH ST. *T-21*	HWY 1 BRIDGE	- 2ND AVE.	UPGRADE AS 2 LANE ARTERIAL WITH TURNING POCKETS & LANDSCAPING (2,000 L.F. X $420 / L.F.)	$840,000	85%	710,000	710,000			
INTERMODAL TRANSPORTATION CENTERS *T-22*	DESIGNATED LOCATION ON 1ST AVE. SOUTH OF 8TH ST. PARK & RIDE - 12TH & IMJIN PARK & RIDE - 8TH & GIGGLING		LUMP SUM	$1,600,000 $900,000 $1,100,000	100%	3,600,000	$1,600,000		900,000	$1,100,000
GIGLING RD. *T-23*	N/S RD.	- DFAS	REBUILD AS 4 LANE ARTERIAL (3,000 L.F. X 588 / L.F.)	$1,760,000	71%	1,250,000	1,250,000			
SALINAS ST. *T-24*	RESERVATION RD.	- ABRAMS RD.	CONSTRUCT NEW 2 LANE ARTERIAL (4,000 L.F. X $603 / L.F.)	$2,410,000	100%	2,410,000	2,410,000			
REMOVED *T-25*										
IMJIN / 12TH ST. *T-26*	CALIFORNIA AVE.	- RESERVATION RD.	WIDEN TO 4 LANE ARTERIAL (7,500 L.F.X($755 - $100)/L.F.)	$4,910,000	50.0%	2,460,000		2,460,000		
2ND AVE. *T-27*	DELMONTE (FORT ORD BOUNDARY)	- 12TH ST.	LANE ARTERIAL (4,000 L.F. X $755 / L.F.) + DEMOLITION-87kSFX$7/SF	$3,020,000 $610,000	72.3% 100%	2,180,000 610,000		2,180,000 610,000		
COE AVE. *T-28*	N/S RD	- FREMONT BLVD.	UPGRADE TO 2 LANE ARTERIAL	NO IMPROVEMENTS PROPOSED						
2ND AVE. *T-29*	12TH ST.	- 1ST AVE.	WIDEN TO 4 LANE ARTERIAL (5,5000 L.F.X($755 - $100)/L.F.)	$3,600,000	72.3%	2,600,000			2,600,000	
CALIFORNIA AVE. *T-30*	12TH ST.	- 8TH ST.	CONSTRUCT NEW 2 LANE LANE ARTERIAL (2,500 L.F. X $603 / L.F.)	$1,510,000	37.5%	570,000			570,000	
8TH ST. *T-31*	4TH AVE.	- 6TH AVE.	CONSTRUCT NEW 2 LANE ARTERIAL (3,300 L.F. X $603 / L.F.)	$2,000,000	85.0%	1,700,000			1,700,000	

FACILITY	SEGMENT FROM	SEGMENT TO	IMPROVEMENT DESCRIPTION		JHK/ AMA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
8TH ST. T-32	2ND AVE and 6TH AVE.	- 4TH AVE. - INTER-GARRISON RD.	UPGRADE TO 2 LANE ARTERIAL (3,100 L.F. X $320 / L.F.)	$990,000	85.0%	840,000				840,000
NORTH SOUTH RD. T-33	SOUTH OF NORMANDY RD.	- COE AVE.	WIDEN TO 4 LANE ARTERIAL (5,400 L.F. X $588 - $100 / L.F.)	$2,640,000	54.0%	1,430,000			1,430,000	
NORTH SOUTH RD. T-34	COE AVE.	- NEW ENTRY	UPGRADE TO 2 LANE ARTERIAL (11,000 L.F. X $320 / L.F.)	$3,520,000	54.0%	1,900,000				1,900,000
GIGLING RD. T-35	DFAS	- EASTSIDE RD.	CONSTRUCT NEW 4 LANE ARTERIAL (4,600 L.F. X $603 / L.F.)	$2,770,000	71.0%	1,970,000			1,970,000	
EASTSIDE RD. T-36	IMJIN RD.	- GIGLING RD.	CONSTRUCT NEW 2 LANE ARTERIAL (10,000 L.F. X $603 / L.F.)	$6,030,000	72.4%	4,370,000			4,370,000	
EUCALYPTUS RD. T-37	N/S RD.	- PARKER FLAT	UPGRADE TO 2 LANE ARTERIAL (9,000 L.F. X $320 / L.F.)	$2,880,000	100%	2,880,000				2,880,000
INTER-GARRISON RD. T-38	8TH AVE.	- EAST GARRISON	UPGRADE TO 2 LANE ARTERIAL (14,000 L.F. X $320 / L.F.)	$4,480,000	85.0%	3,810,000				3,810,000
ABRAMS RD. T-39	2ND AVE	- PATTON SCHOOL	CONSTRUCT NEW 2 LANE ARTERIAL (1,000 L.F. X $603 / L.F.)	$600,000	100%	600,000				600,000
BLANCO ROAD EXTENSION TO IMJIN T-40	RESERVATION ROAD	- IMJIN ROAD	CONSTRUCT NEW 4 LANE ARTERIAL (5,400 L.F. X $755 / L.F.)	$4,080,000	100%	4,080,000		4,080,000		
			THIS COST IS SHOWN AS 100% FORT ORD RESPONSIBILITY ALTHOUGH OTHER IMJIN ROAD/ BLANCO ROAD IMPROVEMENTS ARE ALLOCATED ONLY 50% TO FORT ORD. THE ASSUMPTION IS THAT FUTURE REGIONAL IMPROVEMENTS (BEYOND 2015) WILL BE SOLELY RESPONSIBLE FOR A GRADE SEPARATION STRUCTURE AT RESERVATION AND BLANCO ROADS.							
		TOTALS		$77,970,000		$53,050,000	$15,050,000	$13,330,000	$13,540,000	$11,130,000
GRAND TOTAL FOR TRANSPORTATION IMPROVEMENTS				$898,810,000		$136,510,000	$21,480,000	$24,670,000	$54,230,000	$36,130,000

Table PFIP 1-4
Public Iimprovement Project Listing - Water System

35,205.46

POTABLE WATER SUPPLY AND DISTRIBUTION IMPROVEMENTS					SOURCES OF FUNDING				
					CAPITAL COSTS RATE - BASED		OPERATING COSTS RATE - BASED		
FACILITY	LOCATION	WATER SYS IMPROVEMENT DESCRIPTION	CAPITAL COST	RA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
WATER SUPPLY WELLS 29 30-31-32 *W-1*	POLYGON 9A POLYGON 7A	REDRILL 4 EXISTING WELLS TO DEEPER AQUIFER 2 WELLS IN DCAG GRANT 2 WELLS IN DCAG GRANT - ROUND 2	$2,760,000	0%	0 (1,380,000 GRANT) 0 (1,380,000 GRANT AP)	GRANT GRANT APPLICATION			
DISINFECTION STATION *W-2*	POLYGON 9A	INSTALL NEW CHLORINATION & FLUORIDATION EQUIPMENT IN EXISTING PUMP STATION AND CONNECT TO RAW WATER COLLECTOR FROM WELL FIELD	$160,000	0%	0 (160,000 GRANT)	GRANT			
BOOSTER PUMPS AT MAIN STATION *W-3*	POLYGON 4	REPLACE MAIN PUMPS AND ELECTRICAL / STAND-BY POWER SYSTEMS - ZONES B & C	$3,830,000	75% 25%	2,870,000 TO POM ANNEX	2,870,000			
E ZONE STORAGE TANK *W-4*	POLYGON 25	NEW 1.3 MG STORAGE TANK WITH 24", 18" & 12" CONNECTING PIPE LINES							
		TANK	$350,000						
		24" - 1000' @ 166 / L.F.	$170,000	75%	1,370,000	1,370,000			
		18" - 4,500' @ 124 / L.F.	$560,000						
		12" - 7,500' @ 100 / L.F.	$750,000						
				25%	TO POM ANNEX				

ASSUMPTIONS:

1. POTABLE WATER SUPPLY FOR THE SOUTHWEST SERVICE AREA IS BY REDIRECTION OF THE GOLF COURSE WELL SUPPLY TO THE CAL AMERICAN WATER DISTRIBUTION SYSTEM.
2. POTABLE WATER SUPPLY TO THE NORTHWEST SERVICE AREA (NORTH OF AIRPORT) IS ACCOMPLISHED BY EXTENDING THE MCWD SYSTEM THROUGH ARMSTRONG RANCH.
3. RECLAIMED WATER FOR IRRIGATION USES ON FOUR GOLF COURSES AND AREAS WITH SIGNIFICANT LANDSCAPED AREAS SUCH AS CSUMB, MBEST, AIRPORT, MAJOR PARKS AND SCHOOLS WILL BE SUPPLIED THROUGH MARINA, SEASIDE AND DEL REY OAKS. THESE IMPROVEMENTS WILL BE PUBLIC AGENCY FINANCED (MRWPCA OR MCWD) AND PAID FOR THROUGH REUSED WATER RATES BASED ON METERED FLOWS TO USERS.

FACILITY	LOCATION	WATER SYS IMPROVEMENT DESCRIPTION	CAPITAL COST	RA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
BOOSTER PUMP STATION *W-5*	POLYGON 9A	UPGRADE OF EXISTING ZONE B TO ZONE C BOOSTER PUMP STATION	$280,000	100%	280,000		280,000		
STORAGE RESERVOIRS									
ZONE B	POLYGON 16	REHABILITATE EXISTING	$250,000						
ZONE C	POLYGON 18	STORAGE TANKS	$250,000	75%	560,000	560,000			
ZONE D *W-6*	POLYGON 20C		$250,000	25%	TO POM ANNEX				
DISTRIBUTION SYSTEMS *W-7*	CANTONMENT/ AIRFIELD AREAS	REHABILITATE AND UPGRADE EXISTING DISTRIBUTION SYSTEMS OVER 75% OF 7,900 AC. SERVICE AREA	(.75) X $11,500,000 $8,630,000	75%	6,470,000	1,600,000	1,600,000	1,600,000	1,670,000
				25%	TO POM ANNEX				
METERING *W-8*	CANTONMENT/ AIRFIELD AREAS	METER INSTALLATION AT EXISTING BUILDINGS SCHEDULED TO REMAIN 4,000 @ 300 / EA	$1,200,000	61%	720,000	720,000			
				39%	TO POM ANNEX				
STORAGE RESERVOIRS & PUMPING STATIONS	POLYGON 17A/16	NEW 3.0 MG STORAGE TANK AND BOOSTER PUMP STATION ON INTERGARRISON ROAD							
ZONE B *W-9.1*		TANK	$730,000						
		PUMP STA.	$600,000	100%	2,600,000				2,600,000
		18" - 1,000 L.F. @ 124 / L.F.	$120,000						
		12" - 11,500 L.F. @ 100 / L.F.	$1,150,000						
ZONE D *W-9.2*	POLYGON 18	NEW BOOSTER PUMPING STA.	$690,000	100%	690,000			690,000	

FACILITY	LOCATION	WATER SYS IMPROVEMENT DESCRIPTION	CAPITAL COST	RA %	FORT ORD ALLOCATION				
					$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
ZONE A *W-9.3*	POLYGON 8A	NEW 3 2 MG STORAGE TANK AND 18" DISTRIBUTION REINFORCING LOOP IN MARINA VILLAGE AREA							
		TANK	$830,000						
		18" - 10,500 L.F. @ 124 / L.F.	$1,300,000	100%	2,130,000				2,130,000
DISTRIBUTION SYSTEMS	CANTONMENT / AIRFIELD AREAS	NEW DISTRIBUTION FACILITIES TO SERVE NEW OR INTENSIFIED LAND USE PARTICULARLY IN THE AIRPORT, MBEST AND SOUTHWEST AREAS AS NEEDED							
		24" - 4,000 L.F. @ 166 L.F.	$660,000						
		18" - 42,000 L.F. @ 124 L.F.	$5,260,000	100%	11,740,000		3,900,000	3,900,000	3,940,000
W-10		12" - 58,200 L.F. @ 100 L.F.	$5,820,000						
ADDITIONAL WATER SUPPLY	POLYGON 14C	DESALINATION FACILITY TO MEET 1/3 OF THE POST 2015 WATER REQUIREMENTS (3975 AFY) BASED ON SANTA BARBARA CONSTRUCTION COST PLUS DESIGN							
		$4,800 PER AF PER YEAR CONSTRUCTION							
		$720 CONTINGENCY							
		$1,100 DESIGN SURVEYS & _____ CONSTRUCTION MGMT							
		$6,620 PER AF PER YEAR CAPACITY							
		X 1325 AFY	$8,770,000		8,770,000				$8,770,000
W-11									
GRAND TOTAL FOR POTABLE WATER SYSTEMS			$45,370,000		$38,200,000	$7,120,000	$5,780,000	$6,190,000	$19,110,000

Table PFIP 1-5
Public Improvement Project Listing - Wastewater System

35,205.46

WASTEWATER COLLECTION SYSTEM AND PUMP STATION IMPROVEMENTS					SOURCES OF FUNDING				
					CAPITAL COSTS RATE-BASED		OPERATING COSTS RATE-BASED		
FACILITY	**LOCATION**	**IMPROVEMENT DESCRIPTION**	**CAPITAL COST**	**RA %**	**FORT ORD ALLOCATION $**	**1996 - 2000**	**2001 - 2005**	**2006 - 2010**	**2011 - 2015**
EXISTING SEWAGE PUMP AND LIFT STATIONS *WW-1*	VARIOUS LOCATIONS	UPGRADE 18 STATIONS INCLUDING BOOKER ST. PUMP STATION BYPASS DCAG - ROUND 2	$1,330,000	0%	0 + GRANT	0 + GRANT			
TRUNK SEWERS AND FORCE MAINS *WW-2*	VARIOUS LOCATIONS	REPLACE OBSOLETE SECTIONS	$1,800,000	100%	1,800,000	200,000	400,000	600,000	600,000
ORD VILLAGE PUMPIN *WW-3* STATION	POLYGON 12	ENLARGE AND UPGRADE EXISTING STATION *COMBINED DCAG ROUNDS 1 AND 2*	$730,000	0%	0 + GRANTS				
GIGLING PUMP STATIO *WW-4* BYPASS LINE	POLYGON 20h	NEW GRAVITY SEWER TO THE ORD VILLAGE STATION TO ALLOW ABANDONMENT OF GIGLING STATION							
		18" - 6,500' @ 140/L.F.	$910,000	0%					
		12" - 4,300' @ 85/L.F.	$370,000	0%	POM ANNEX SHARE				
INTERCEPTOR SEWER *WW-5*	POLYGON 22	NEW GRAVITY INTERCEPTOR TO CONNECT TAZ 779 TO TAZ 780 AND CONVEY FLOW FROM BOTH TO ORD VILLAGE STATION							
		12" - 8,500' @ 85/L.F.	$720,000	100%	720,000		720,000		

FACILITY	LOCATION	IMPROVEMENT DESCRIPTION	CAPITAL COST	RA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
BOOKER STREET PUMP STATION BYPASS *PART OF WW-1*	POLYGON 2a	NEW GRAVITY SEWER FROM BOOKER STATION SITE TO AND ACROSS HWY 1 TO CONNECT WITH EXISTING FORT ORD INTERCEPTOR WEST OF HWY 1 ALLOWING ABANDONMENT OF BOOKER STATION 12" - 1,500' @ 175/L.F.	INCLUDED ABOVE						
RESERVATION ROAD PUMP STATION AND COLLECTION SYSTEM *WW-6*	POLYGON 6a	NEW STATION GRAVITY COLLECTION MAINS 15" - 3,500' @ 105/L.F. 8" - 11,400' @ 50/L.F. FORCE MAIN TO MARINA 6" -4,500' @ 50/L.F. *COMBINED DCAG ROUNDS 1 AND 2*	$300,000 $370,000 $570,000 $220,000	0% 0% 0% 0%	0 + GRANTS				
EAST GARRISON PUMP STATION AND OUTFALL SYSTEM *WW-7*	POLYGON 11b	PUMP STATION FORCE MAIN 4" - 5,400' @ 45/L.F. GRAVITY INTERCEPTOR 8" - 2,400' @ 50/L.F.	$50,000 $240,000 $120,000	100% 100% 100%	410,000	410,000			
WASTEWATER TREATMENT CAPACITY *WW-8*	MRWPCA REGIONAL PLANT	BUY-IN PAYMENT TO MRWPCA FOR CAPACITY REQUIRED IN EXCESS OF 3.3 MGD AT $10Million/MGD	$7,700,000	100%	7,700,000				7,700,000
TOTALS FOR WASTEWATER SYSTEM IMPROVEMENTS			$14,100,000		$10,630,000	$610,000	$1,120,000	$600,000	$8,300,000

Table PFIP 1-6
Public Improvement Project Listing - Parks and Recreation

35,205.48

COMMUNITY PARK IMPROVEMENTS

SOURCES OF FUNDING

CAPITAL COSTS — LOCAL FINANCING BY JURISDICTION

OPERATING COSTS — GENERAL FUND OF EACH JURISDICTION

JURISDICTION		LOCATION	PARK/REC IMPROVEMENT DESCRIPTION	CAPITAL COST	FORT ORD ALLOCATION %	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
SEASIDE	*P-1*	POLYGON 18 50 AC. TOTAL 17 AC. DEVELOPED THRU 2015	NEW PARK FACILITY FACILITIES — BUILDINGS SOCCER - 1 — TOILETS BASEBALL - 1 — MAINT. BASEBALL LIT - 1 PLAYGROUND — OFF STREET PICNIC AREA — PARKING MEADOW	$3,420,000	100%	SAME	3,420,000			
	P-2	POLYGON 24 25 AC. TOTAL 2 AC. DEVELOPED THRU 2015	EQUESTRIAN ACCESS AND TRAILHEAD TO BLM REGIONAL RECREATION AREA OFF STREET PARKING	$285,000	100%	SAME				285,000
MARINA	*P-3*	POLYGON 2G 39.5 AC. TOTAL 5 AC. DEVELOPED THRU 2015	TRANSITION FROM EXISTING EQUESTRIAN CENTER TO PARK SOCCER FIELD	$1,410,000	100%	SAME			1,410,000	
	P-4	POLYGON 17A 46 AC. TOTAL 16.5 AC. DEVELOPED THRU 2015	EQUESTRIAN ACCESS AND TRAILHEAD TO BLM REGIONAL RECREATION AREA OFF STREET PARKING	$2,510,000	100%	SAME		2,510,000		
			TOTALS	$7,625,000		SAME	$3,420,000	$2,510,000	$1,410,000	$285,000

NEIGHBORHOOD PARK IMPROVEMENTS

SOURCES OF FUNDING

CAPITAL COSTS — LOCAL FINANCING BY JURISDICTION

OPERATING COSTS — GENERAL FUND OF EACH JURISDICTION

JURISDICTION		LOCATION	PARK/REC IMPROVEMENT DESCRIPTION	CAPITAL COST	FORT ORD ALLOCATION %	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
MARINA	*P-5*	POLYGON 4 27.25 AC. TOTAL 10 AC DEVELOPED THRU 2015	EXISTING PARK TO BE DEMOLISHED FOR CLEANUP. PARK RECONSTRUCTION TO INCLUDE: FIELDS: FOOTBALL, BASEBALL FACILITIES: RUNNING TRACK, OFF STREET PARKING	$1,955,000	100%	SAME		1,955,000		
	P-6	POLYGON 2A 10AC. TOTAL 10 AC. DEVELOPED THRU 2015	EXISTING GYMNASIUM AND INDOOR SWIMMING POOL AS CENTER FACILITIES FOR A NEW PARK. EXISTING OFF ST. PARKING ADDED FACILITIES PLAYGROUND OUTSIDE BASKETBALL COURT	$2,230,000	100%	SAME	2,230,000			
SEASIDE	*P-7*	POLYGON 15 8 AC. TOTAL 8 AC. DEVELOPED THRU 2015	NEW PARK FACILITY FACILITIES: SOCCER, BASEBALL (LITTLE LEAGUE), PLAYGROUND, MEADOW BUILDINGS: TOILETS, MAINT. OFF STREET PARKING	$2,430,000	100%	SAME		2,430,000		
	P-8	POLYGON 20E 5 AC. TOTAL 5 AC. DEVELOPED THRU 2015	NEW PARK FACILITY OF URBAN NATURE FACILITIES: TENNIS COURT, BASKETBALL CT. BUILDINGS: TOILETS OFF STREET							

JURISDICTION		LOCATION	PARK/REC IMPROVEMENT DESCRIPTION		CAPITAL COST	FORT ORD ALLOCATION					
						%	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
SEASIDE CONT'D			PLAYGROUND PICNIC AREA MEADOW	PARKING	$1,235,000	100%	SAME			1,235,000	
	P-9	POLYGON 20G 10 AC. TOTAL 10 AC. DEVELOPED THRU 2015	NEW PARK ADJACENT TO EXISTING SCHOOL FIELDS BASEBALL BASKETBALL CT. PICNIC AREA MEADOW	BUILDINGS TOILETS MAINT. OFF STREET PARKING	$2,670,000	100%	SAME	2,670,000			
	P-10	POLYGON 20H 10 AC. TOTAL 10 AC. DEVELOPED THRU 2015	NEW PARK WITH RECREATION CENTER FACILITIES TENNIS COURTS BASKETBALL CT. PLAYGROUND PICNIC AREA MEADOW	BUILDINGS REC. CENTER TOILETS OFF STREET PARKING	$2,995,000 PART OF POM ANNEX RELOCATION	100%	SAME		2,995,000		
MONTEREY COUNTY	*P-11*	POLYGON 21A 10 AC. TOTAL 10 AC. DEVELOPED THRU 2015	NEW PARK COORDINATED WITH HABITAT MANAGEMENT FACILITIES PLAYGROUND PICNIC AREA MEADOW	BUILDINGS REC. CENTER OFF STREET PARKING	$1,435,000	100%	SAME				1,435,000
				TOTAL	$14,950,000		SAME	$4,900,000	$7,380,000	$1,235,000	$1,435,000
			GRAND TOTAL FOR PARKS AND RECREATION IMPROVEMENTS		$22,575,000		SAME	$8,320,000	$9,890,000	$2,645,000	$1,720,000

Table PFIP 1-7
Public Improvement Project Listing - Habitat Management Related

35,205.48

HABITAT MANAGEMENT				SOURCES OF FUNDING: CAPITAL COSTS BASE-WIDE IMPACT FEES				OPERATING COSTS BASE-WIDE BENEFIT ASSESSMENT
LOCATION	HABITAT MANAGEMENT IMPROVEMENT DESCRIPTION ITEM	TYPE	COST TO NEW DEVE-LOPMENT	CAPITAL COST * $	FORT ORD ALLOCATION 1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
POLYGON 1A	FENCING TO HABITAT AREA		REQ'RD					
HM-1	MANAGEMENT PLAN	PLAN		$47	47			
POLYGON 1B	FENCING	PERIMETER; AROUND EQUIP. BY AIRPORT	REQ'RD					
	ROAD TO LIGHTS	MAINT. BY AIRPORT	REQ'RD					
	GATES	POWDER RIVER GATE		$3,312	3,312			
	MANAGEMENT PLAN	PLAN		$207	207			
	RESTORATION Cscrub	REVEGETATION - HAND CREWS		$299	299			
HM-2	RESTORATION Cscrub	REVEGETATION - MATERIALS		$6,900	6,900			
POLYGON 1C	BARRIER TO HABITAT AREAS		REQ'RD					
POLYGONS 1D & 1E	FENCING: SOUTH SIDE	BUILT/MAINT'NED BY AIRPORT	REQ'RD					
	FENCING	BARRIER ON BLONCO ROAD	REQ'RD					
HM-3	MANAGEMENT PLAN	MANAGEMENT PLAN		$104	104			
POLYGON 2A	YP PRESERVE WITH CE		REQ'RD					
	TRAFFIC BARRIER	18" CURBS ON ROADS AROUND	REQ'RD					
	GATES	VEHICLE BARRIER		$345	345			
	FENCING	SPLIT RAIL TRIANGULAR		$101,775	101,775			
HM-4	MANAGEMENT PLAN	MANAGEMENT PLAN		$156	156			
POLYGON 4	FENCE TO 5C		REQ'RD					
	PUBLIC NATURAL AREA POCKET	POCKET RETENTION	REQ'RD					
POLYGON 5A	BARRIARS	FIRE BREAKS; DRAINAGE TO BLM						
POLYGON 5B	MARINA HAS TURNED THIS PARCEL OVER TO THE UNIVERSITY TO GO WITH POLYGON 5C.							
POLYGON 10A	BARRIERS	FIREBREAKS; DRAINAGE TO PRESERVES	REQ'RD					

* ZANDER ASSOCIATES

LOCATION	HABITAT MANAGEMENT IMPROVEMENT DESCRIPTION		COST TO NEW DEVE-	CAPITAL COST *	FORT ORD ALLOCATION			
	ITEM	TYPE	LOPMENT	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
POLYGON	INTERGARRISON ROAD	POST AND CABLE FENCE		$55,890	55,890			
11A	RESERVATION ROAD	POST AND CABLE FENCE		$33,534	33,534			
	FENCING AT HOUSING	REQUIREMENT OF UC	REQ'RD					
	ON EAST SIDE ROAD	POST AND CABLE		$24,840	24,840			
	GATES	LOCKS		$83	83			
	ROAD RESTORATION	REVEG.- PLAN & SUPERVISE		$2,332	2,332			
	MANAGEMENT PLAN	PLAN		$311	311			
	FIRE MGMT. PLAN	PLAN		$276	276			
	ROAD RESTORATION	REVEGETATE		$159,583	159,583			
	SPRAYERS	MATERIALS		$69	50			
HM-5	SIGNS (3.5 MI. PERIM @ 500')	SIGNS		$331	331			
POLYGON	PRESERVATION AS PUBLIC		REQ'RD					
11B	NATURAL AREA							
	FENCING	CHAIN LINK ALONG NEW HWY.	REQ'RD					
	GATES	CHAIN LINK ALONG NEW HWY.	REQ'RD					
	FIREBREAKS / BARRIERS TO		REQ'RD					
	OPEN AREA							
	ROAD RESTORATION	REVEG. - SUPERVISE & PLAN		$3,588	3,588			
	MANAGEMENT PLAN	MANAGEMENT PLAN		$828	828			
	FIRE MGMT. PLAN	PLAN		$552	552			
	ROAD RESTORATION	REVEGETATE DIRT ROADS		$1,507	1,507			
HM-6	ROAD RESTORATION	EQUIP. AND PLANTS		$4,140	4,140			
POLYGON	PARK RULES RE: HABITAT		REQ'RD					
17A	COMPLIANCE PARK							
POLYGON	REPAIR AND REPLACE	POST AND CABLE		$17,512	17,512			
17B	FENCE EXPANSION	POST AND CABLE		$192,510	192,510			
	GATES	CABLE GATES WITH LOCKS		$83	83			
	ROAD RESTORATION	REVEG. SUPERVISION AND		$1,794	1,794			
		PLANNING						
	MANAGEMENT PLAN	PLAN		$414	414			
	FIRE MGMT. PLAN	PLAN		$414	414			
	ROAD RESTORATION	REVEGETATE SOME DIRT RDS		$1,507	1,507			
	INTERPRETIVE	INTERPRETIVE SIGNS		$2,070	2,070			
HM-7	KIOSK	INTERP. KIOSK		$1,311	1,311			

* ZANDER ASSOCIATES

LOCATION	HABITAT MANAGEMENT IMPROVEMENT DESCRIPTION		COST TO NEW DEVE-	CAPITAL COST *	FORT ORD ALLOCATION			
	ITEM	TYPE	LOPMENT	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
POLYGON	RETAIN OAK STRIP WITH CE		REQ'RD					
19A	P&C FENCING	HIGHWAY FROM HABITAT	REQ'RD					
	SIGNIFICANT PARKING CURB	TO BLM & HABITAT AREAS	REQ'RD					
	BARRIER	FIREBRKS;DRAINAGE TO BLM;	REQ'RD					
	ROAD MAINTENANCE	COUNTY RESPONSIBILITY	REQ'RD					
	ECOLOGIST / REVG	SUPERVISION / PLAN		$3,588	3,588			
	MANAGEMENT PLAN	MANAGEMENT PLAN		$621	621			
	FIRE MANAGEMENT PLAN	FIRE PLAN		$414	414			
	ROAD RESTORATION	REVEGETATE DIRT ROAD		$1,001	1,001			
HM-8	ROAD RESTORATION	EQUIP. AND PLANTS		$4,140	4,140			
POLYGON	PUBLIC NATRL AREA POCKET		REQ'RD					
20C	BARRIERS	FIREBRKS;DRAINAGE TO BLM;	REQ'RD					
HM-9	MANAGEMENT PLAN	PLAN		$104	104			
POLYGON	RETAIN OAK STRIP WITH CE		REQ'RD					
21A	P&C FENCING	HIGHWAY FROM HABITAT	REQ'RD					
	SIGNIFICANT PARKING CURB	TO BLM HABITAT AREAS	REQ'RD					
	BARRIERS	FIREBRKS;DRAINAGE TO BLM; HABITAT AREAS	REQ'RD					
	ROAD MAINTENANCE	COUNTY RESPONSIBILITY	REQ'RD					
	ROAD RESTORATION	REVEG. SPECIALIST PLAN,		$897	897			
	MANAGEMENT PLAN	MANAGEMENT PLAN		$311	311			
	FIRE MGMT PLAN	FIRE PLAN						
	ROAD RESTORATION	REVEGETATE DIRT ROADS - HABITAT		$1,001	1,001			
HM-10	ROAD RESTORATION	EQUIP. AND PLANTS		$2,760	2,760			
POLYGON	RETAIN OAK STRIP WITH CE		REQ'RD					
21B	P&C FENCING	HIGHWAY FROM HABITAT	REQ'RD					
	SIGNIFICANT PARKING CURB	TO BLM HABITAT AREAS	REQ'RD					
	BARRIERS	FIREBRKS/DRAINAGE TO BLM; HABITAT AREAS	REQ'RD					
	ROAD MAINTENANCE	COUNTY RESPONSIBILITY	REQ'RD					
	ROAD RESTORATION	REVEG. SPECIALIST SUPERVISION / PLAN		$1,794	1,794			
	MANAGEMENT PLAN	MANAGEMENT PLAN		$414	414			
	ROAD RESTORATION	REVEG. DIRT ROADS - HAB		$1,507	1,507			
HM-11	ROAD RESTORATION	REVEG. AND RESTORATION - HAB		$4,140	4,140			

* ZANDER ASSOCIATES

LOCATION	HABITAT MANAGEMENT IMPROVEMENT DESCRIPTION		COST TO NEW DEVE-	CAPITAL COST *	FORT ORD ALLOCATION			
	ITEM	TYPE	LOPMENT	$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
POLYGON 23	PUBLIC NATURAL AREA	OAK POCKET E. END	REQ'RD					
	POCKET							
HM-12	MANAGEMENT PLAN	PLAN		$104	104			
POLYGON 24	BARRIERS	FIREBREAKS; DRAINAGE TO	REQ'RD					
		BLM						
POLYGON	BARRIERS	FIREBREAKS; DRAINAGE	REQ'RD					
29A		CONTROL						
POLYGON	NO DRAINAGE TO FROGPOND		REQ'RD					
29C								
POLYGON	NO DRAINAGE TO FROGPOND		REQ'RD					
29D								
POLYGON	PARK RULES RE: HABITAT		REQ'RD					
29E	DRAINAGE CONTROL		REQ'RD					
POLYGON	FENCE POND / DRAINAGE	CHAIN LINK		$24,219	24,219			
30A	MANAGEMENT PLAN	PLAN		$207	207			
	SIGNS	1/500' OF 21,000' FRONTAGE		$348	348			
HM-13		TO BLM						
POLYGON	SIGNS	METAL / 500'		$83	83			
30B								
HM-14								
POLYGON	SIGNS	METAL 500' (27900LF)		$497	497			
30C		REMOVABLE						
	SIGNS	ENTRANCE SIGN, REMOVABLE		$828	828			
HM-15	MANAGEMENT PLAN	PLAN		$104	104			
POLYGON	NO REQUIREMENTS; PARKS TO COMPLETE AND MAINTAIN NATURAL HABITAT.							
31A								
POLYGON	FENCING TO FROGPOND	POST AND CABLE	REQ'RD					
31B	SIGNING TO FROGPOND		REQ'RD					
31B	NO DRAINAGE TO FROGPOND		REQ'RD					
POLYGON 32	BARRIERS	FIREBREAKS, DRAINAGE,	REQ'RD					
		EROSION CONTROL						
	GRAND TOTAL HABITAT MANAGEMENT PROJECTS (ROUNDED)			$668,000	$668,000			

* ZANDER ASSOCIATES

Table PFIP 1-8
Public Improvement Project Listing - Drainage System

35,205.48

EXISTING DRAINAGE SYSTEMS MODIFICATIONS

SOURCES OF FUNDING

CAPITAL COSTS — TRIBUTARY AREA BENEFIT DISTRICT

OPERATING COSTS — MAINTANCE ASSESSMENT BY WATERSHED THROUGH JPA

FACILITY		LOCATION	IMPROVEMENT DESCRIPTION	CAPITAL COST	RA %	FORT ORD ALLOCATION $	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
STORM WATER OUTFALLS										
A		POLYGON 12 WEST OF HWY 1	BIFURCATON OF EXISTING DRAINAGE OUTFALL WEST OF HWY 1., SITE GRADING TO PROVIDE STILLING BASIN AND SPREADING BASIN TO ALLOW STORM WATER FLOWS TO FOLLOW NATURAL FLOW LINES. REMOVAL OF OUTFALL PIPES FROM BEACH AREA WEST OF DUNES.	$1,380,000	0%	SERVES POM ANNEX 100% TO ARMY				
B & C & D	*D-1*	POLYGONS 13 & 14 WEST OF HWY 1		$2,210,000	100%	SERVES CSUMB AND CITY OF MARINA	2,210,000	2,210,000		
						ASSESS AS BENEFIT FEES AT $1750+/- PER AC. FOR TAZs 759, 760, 761, 762, 770, 771.				
GRAND TOTAL FOR DRAINAGE SYSTEM MODIFICATIONS				$3,590,000		$2,210,000	$2,210,000 *	$0	$0	$0

* DEPENDS UPON NPDES PROGRAM ENFORCEMENT SCHEDULES.

Table PFIP 1-9
Public Improvement Project Listing - Public Services

PUBLIC SERVICES (See Note 1)					SOURCES OF FUNDING				
					CAPITAL COSTS		OPERATING COSTS		
					BASE-WIDE IMPACT FEES		GENERAL FUND		
FACILITY	LOCATION	IMPROVEMENT DESCRIPTION	CAPITAL COST	AMA %	FORT ORD ALLOCATION				
					$	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
FIRE STATION *PS-1*	TO BE DETERMINED	SEE NOTE 2	$1,110,000	100%	1,110,000		1,110,000		
	GRAND TOTAL FOR PUBLIC SERVICES		$1,110,000		$1,110,000	$0	$1,110,000	$0	$0

NOTE 1: THE OPERATIONS PLAN COMPONENT OF THE FORT ORD BASE REUSE PLAN CONSIDERED THE FOLLOWING SERVICES:

1. POLICE
2. FIRE
3. LIBRARIES
4. CRIMINAL JUSTICE
5. ADMINISTRATION AND GENERAL GOVERNMENT (INCLUDING PLANNING AND FINANCE)
6. SCHOOLS
7. PUBLIC AND ENVIRONMENTAL HEALTH
8. PARKS AND RECREATION
9. PUBLIC WORKS
10. SOCIAL SERVICE
11. EMERGENCY

ADDITIONAL DEMANDS FOR THESE SERVICES WOULD BE GENERATED BY REUSE OF THE TERRITORY WITHIN FORT ORD AND ADDITIONAL FACILITIES WOULD BE REQUIRED. HOWEVER, WITH THE POSSIBLE EXCEPTION DESCRIBE IN NOTE 2, IT WAS CONCLUDED THAT THESE FACILITIES WOULD BE OF LOCAL, RATHER THAN BASE-WIDE SIGNIFICANCE.

THE ADDITIONAL OPERATIONS AND MAINTENANCE EXPENSES ASSOCIATED WITH THESE ADDITIONAL LOCAL FACILITIES WILL BE CONSIDERED IN THE FORTHCOMING FISCAL ANALYSIS.

NOTE 2: ALTERNATIVE ARRANGEMENTS FOR PROVIDING FIRE SERVICE ARE CURRENTLY BEING EVALUATED AND ALLOWANCE IS BEING MADE IN THIS DRAFT OF THE FORA PROJECT LIST FOR ONE NEW FIRE STATIONS.

THE CONCLUSION MAY BE REACHED THAT A NEW STATION (POSSIBLY WITH JOINT STAFFING FROM MORE THAN ONE OF THE CURRENT FIRE SERVICE PROVIDERS) WOULD PROVIDE COST SAVINGS OR A HIGHER LEVEL OF PROTECTION FOR MORE THAN ONE JURISDICTION. IN SUCH A CASE, A BASE-WIDE DEVELOPMENT IMPACT FEE COULD BE USED TO FINANCE THE STATION.

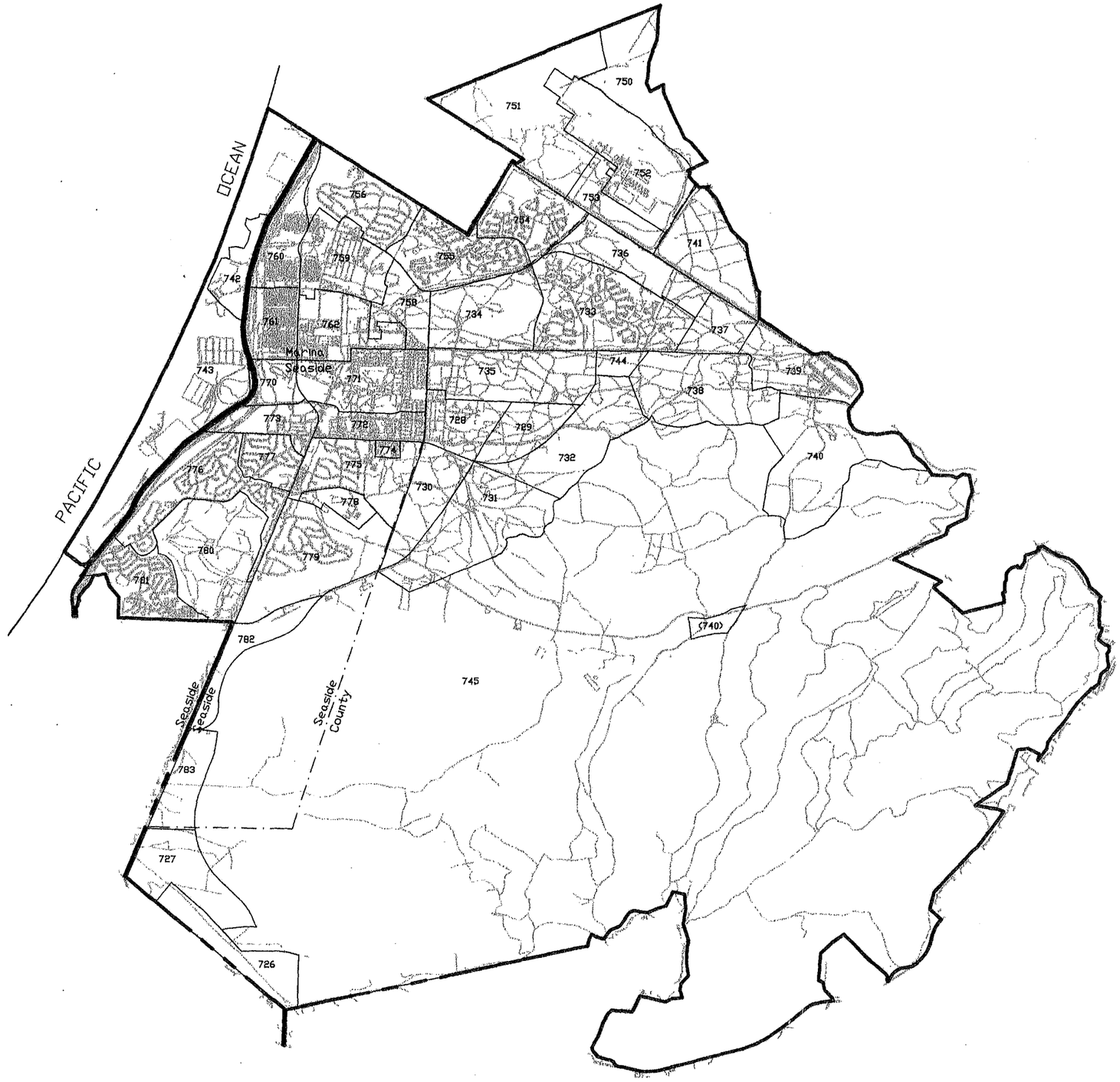
Table PFIP 1-10
Public Improvement Project Listing
Summary of Capital Investment for Infrastructure

BASEWIDE IMPROVEMENTS 35,205.39

	TOTAL $	FORT ORD ALLOCATION			
		1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015
TRANSPORTATION					
REGIONAL IMPROVEMENTS	$57,000,000	$1,650,000	$1,650,000	$34,000,000	$19,700,000
OFFSITE IMPROVEMENTS FROM TAMC STUDY	$26,460,000	$4,780,000	$9,690,000	$6,690,000	$5,300,000
ONSITE ROADWAY IMPROVEMENTS	$53,050,000	$15,050,000	$13,330,000	$13,540,000	$11,130,000
WATER					
POTABLE WATER SUPPLY & DISTRIBUTION	$38,200,000	$7,120,000	$5,780,000	$6,190,000	$19,110,000
WASTEWATER					
WASTEWATER COLLECTION SYSTEM AND PUMP STATION IMPROVEMENTS	$10,630,000	$610,000	$1,120,000	$600,000	$8,300,000
HABITAT					
HABITAT MANAGEMENT	$668,000	$668,000	$0	$0	$0
DRAINAGE					
EXISTING DRAINAGE SYSTEMS MODIFICATIONS	$2,210,000	$2,210,000	$0	$0	$0
FIRE PROTECTION					
FIRE STATION	$1,110,000	$0	$1,110,000	$0	$0
SUMMARY BY PHASE	$189,328,000	$32,088,000	$32,680,000	$61,020,000	$63,540,000

IMPROVEMENTS - FINANCED BY LOCAL JURISDICTIONS

PARKS & RECREATION					
COMMUNITY PARK IMPROVEMENTS	$7,625,000	$3,420,000	$2,510,000	$1,410,000	$285,000
NEIGHBORHOOD PARK IMPROVEMENTS	$14,950,000	$4,900,000	$7,380,000	$1,235,000	$1,435,000
SUMMARY BY PHASE	$22,575,000	$8,320,000	$9,890,000	$2,645,000	$1,720,000



FORT ORD BASE REUSE PLAN

Fort Ord Reuse Authority (FORA)

Lead Planning	EDAW, Inc.	San Francisco, CA
	EMC Planning Group, Inc.	Monterey, CA
Market Analysis	Sedway Kolin Mouchly Group	San Francisco, CA
Transportation Engineering	JHK and Associates	Emeryville, CA
Civil Engineering	Reimer Associates	So. San Francisco, CA
Habitat Planning	Zander Associates	Novato, CA
Public Communications	The Ingram Group	Pacific Grove, CA

LEGEND:

- Fort Ord Boundary
- 720 — TAZ Boundary and ID
- City Boundary
- Existing Roadway

SOURCE:

DRAWING	DESCRIPTION	BY

REIMER ASSOCIATES
INFRASTRUCTURE PLANNERS • CIVIL ENGINEERS • SURVEYORS

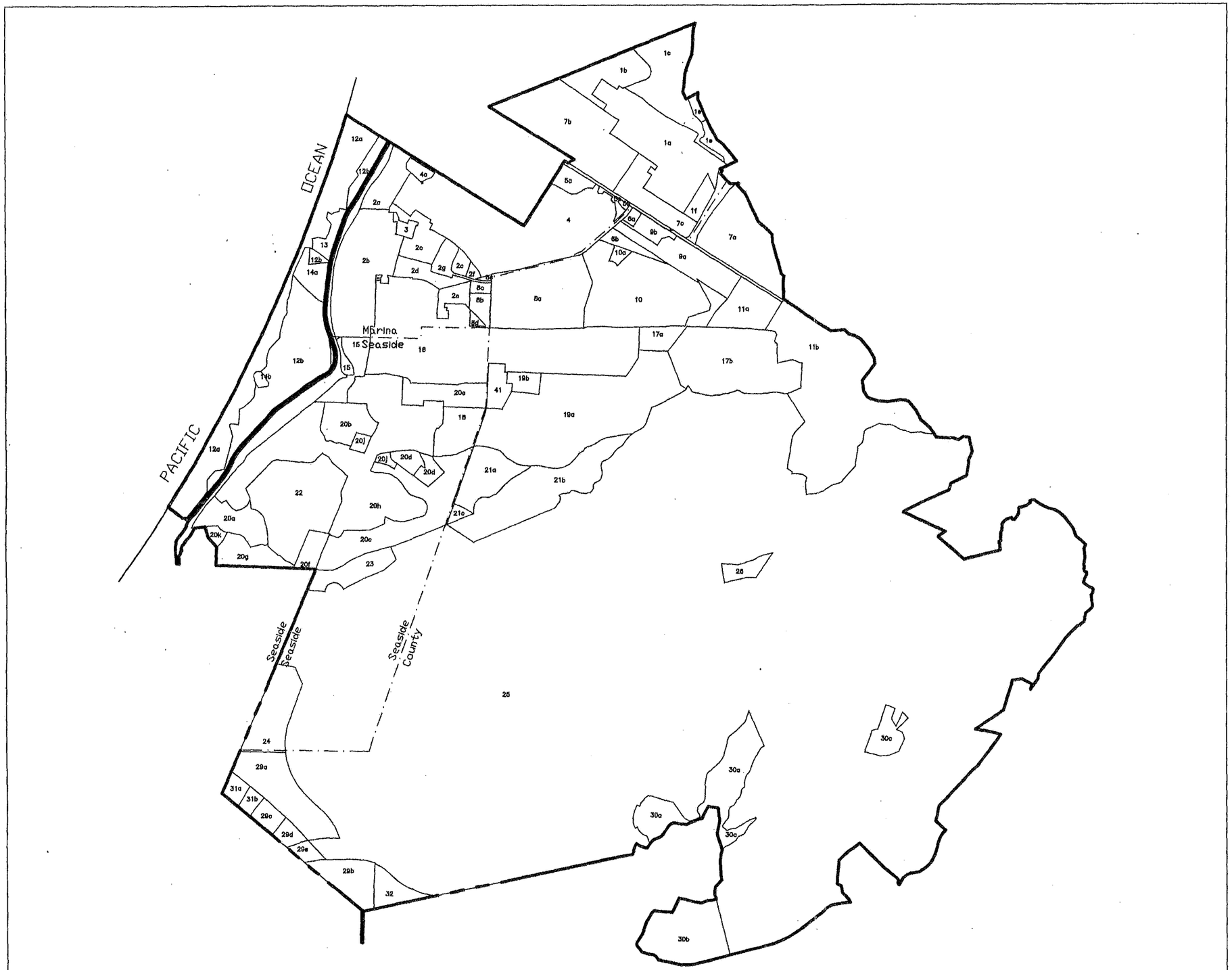
SHEET TITLE:

TRANSPORTATION ANALYSIS ZONES (TAZ)

FIGURE PFIP 1-1

NOT TO SCALE

PFIP 1-48



FORT ORD BASE REUSE PLAN

Fort Ord Reuse Authority (FORA)

Land Planning	EDAW, Inc.	San Francisco, CA
	EMC Planning Group, Inc.	Monterey, CA
Market Analysis	Sedway Kotin Moulthy Group	San Francisco, CA
Transportation Engineering	JHK and Associates	Emeryville, CA
Civil Engineering	Rehmer Associates	So. San Francisco, CA
Habitat Planning	Zander Associates	Novato, CA
Public Communications	The Ingram Group	Pacific Grove, CA

LEGEND:

Fort Ord Boundary

Land Use Polygons

1a — Land Use Identification

SOURCE:

DRAWING	DESCRIPTION	BY

REHMER ASSOCIATES
INFRASTRUCTURE PLANNERS • CIVIL ENGINEERS • SURVEYORS

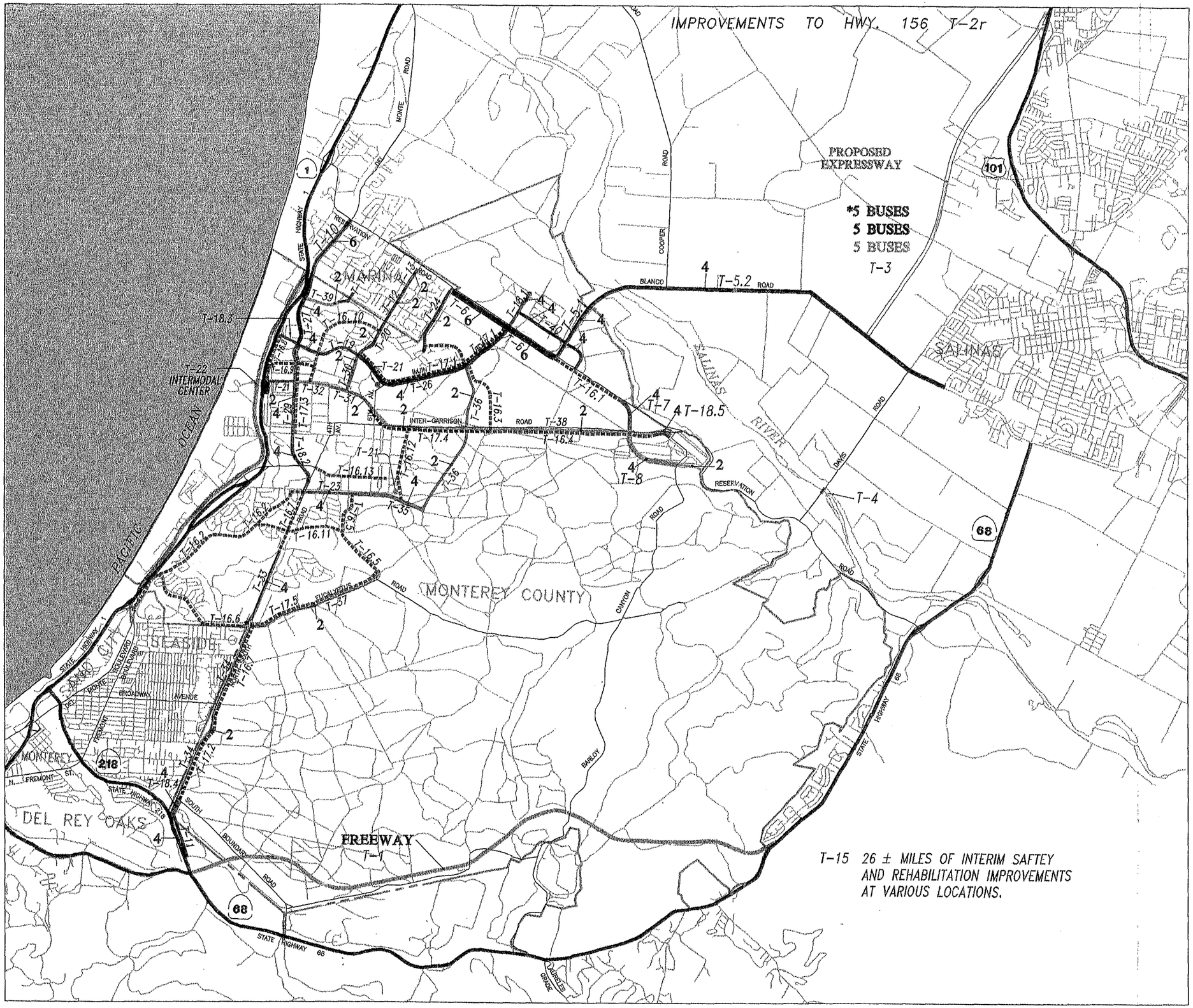
SHEET TITLE:

LAND USE POLYGONS FOR BASE REUSE

FIGURE PFIP 1-2

NOT TO SCALE

PFIP 1-49



FORT ORD
CAPITAL IMPROVEMENT PROJECTS

Fort Ord Reuse Authority (FORA)

Land Planning	EDAW, Inc.
	EMC Planning Group, Inc.
Market Analysis	Sedway Kotin Moochly Group
Transportation Engineering	JHK and Associates
Civil Engineering	Reimer Associates
Habitat Planning	Zander Associates
Public Communications	The Ingram Group

LEGEND:

- PHASE I - 1996 / 2000
- PHASE II - 2001 / 2005
- PHASE III - 2006 / 2010
- PHASE IV - 2011 / 2015
- INTERIM OR UPGRADE IMPROVEMENTS ON EXISTING ROUTES.
- T-# CIP PROJECT NUMBER
- *—4 NUMBER OF PROPOSED LANES

SOURCE:

NEWTRAN5.DWG	PROPOSED TRANSPORTATION	EDAW
FTORDQDS.DWG	FORT ORD BACKGROUND	MCPD
BND-100.DWG	FORT ORD BOUNDARY	EDAW
DRAWING	DESCRIPTION	BY

REIMER ASSOCIATES
INFRASTRUCTURE PLANNERS • CIVIL ENGINEERS • SURVEYORS

SHEET TITLE:

PHASED TRANSPORTATION SYSTEM TO THE YEAR 2015

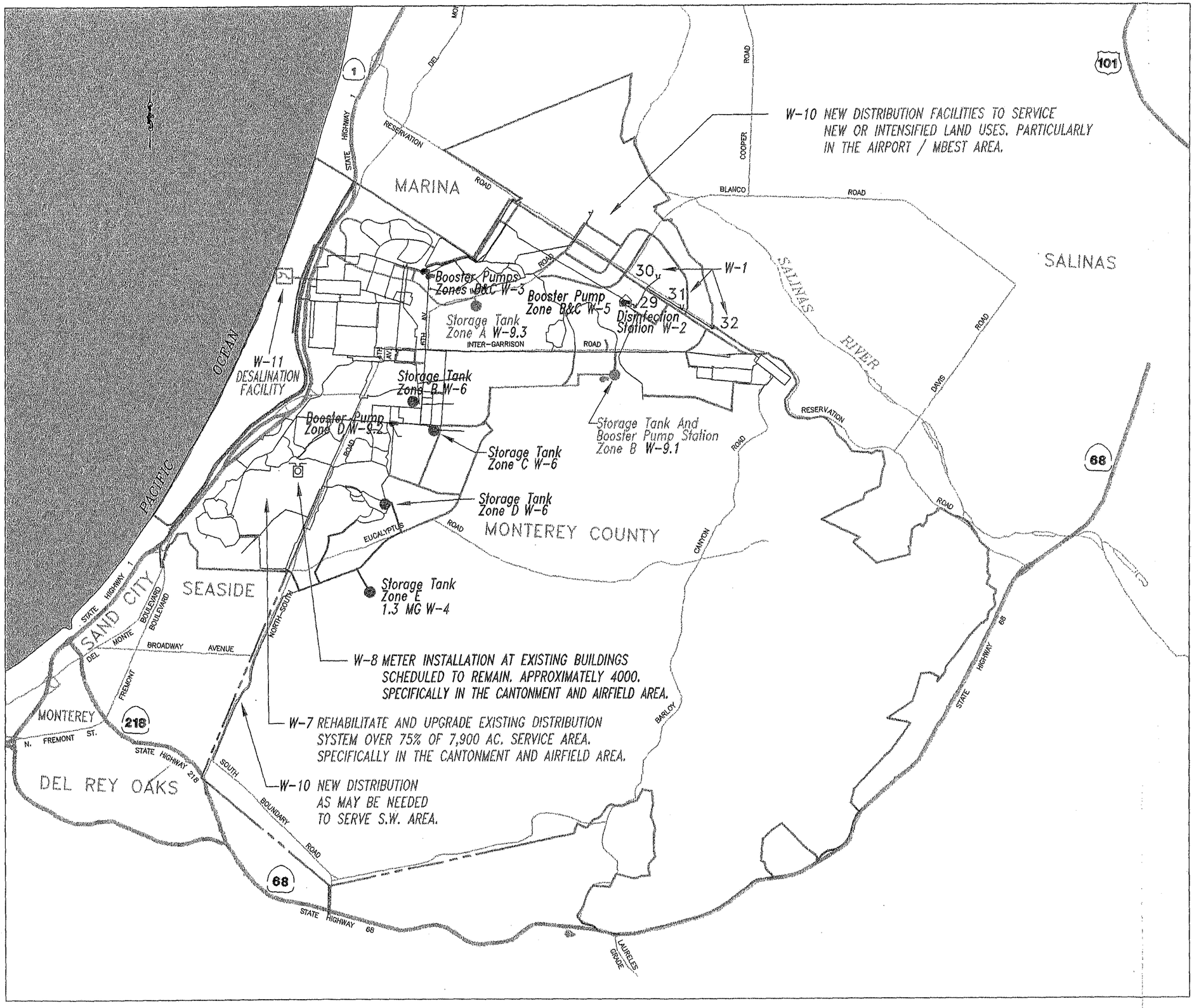
FIGURE PFIP 1-3

GRAPHIC SCALE 0 750 1500 3000 4500

NORTH

PLOT DATE: 3/6/96

DRAWN BY: EPA
CHECKED BY: POR



FORT ORD
CAPITAL IMPROVEMENT PROJECTS

Fort Ord Reuse Authority (FORA)

Land Planning	EDAW, Inc.
	EMC Planning Group, Inc.
Market Analysis	Sedway Kotin Moshiri Group
Transportation Engineering	JHK and Associates
Civil Engineering	Reimer Associates
Habitat Planning	Zander Associates
Public Communications	The Ingram Group

LEGEND:

- EXISTING WATER DISTRIBUTION SYSTEM
- WELL
- PUMP
- DISINFECTION STATION
- DESALINATION PLANT
- PHASE I - 1996 / 2000
- PHASE II - 2001 / 2005
- PHASE III - 2006 / 2010
- PHASE IV - 2011 / 2015
- PHASE ALL - 1996 / 2015
- W-# CIP PROJECT NUMBER

SOURCE:

NEWTRANS.DWG	PROPOSED TRANSPORTATION	EDAW
FTORDRDS.DWG	FORT ORD BACKGROUND	MCPD
BND-100.DWG	FORT ORD BOUNDARY	EDAW
UTIL.DWG	FORT ORD UTILITIES	RA
DRAWING	DESCRIPTION	BY

REIMER ASSOCIATES
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SHEET TITLE:

PHASED WATER SYSTEM TO THE YEAR 2015

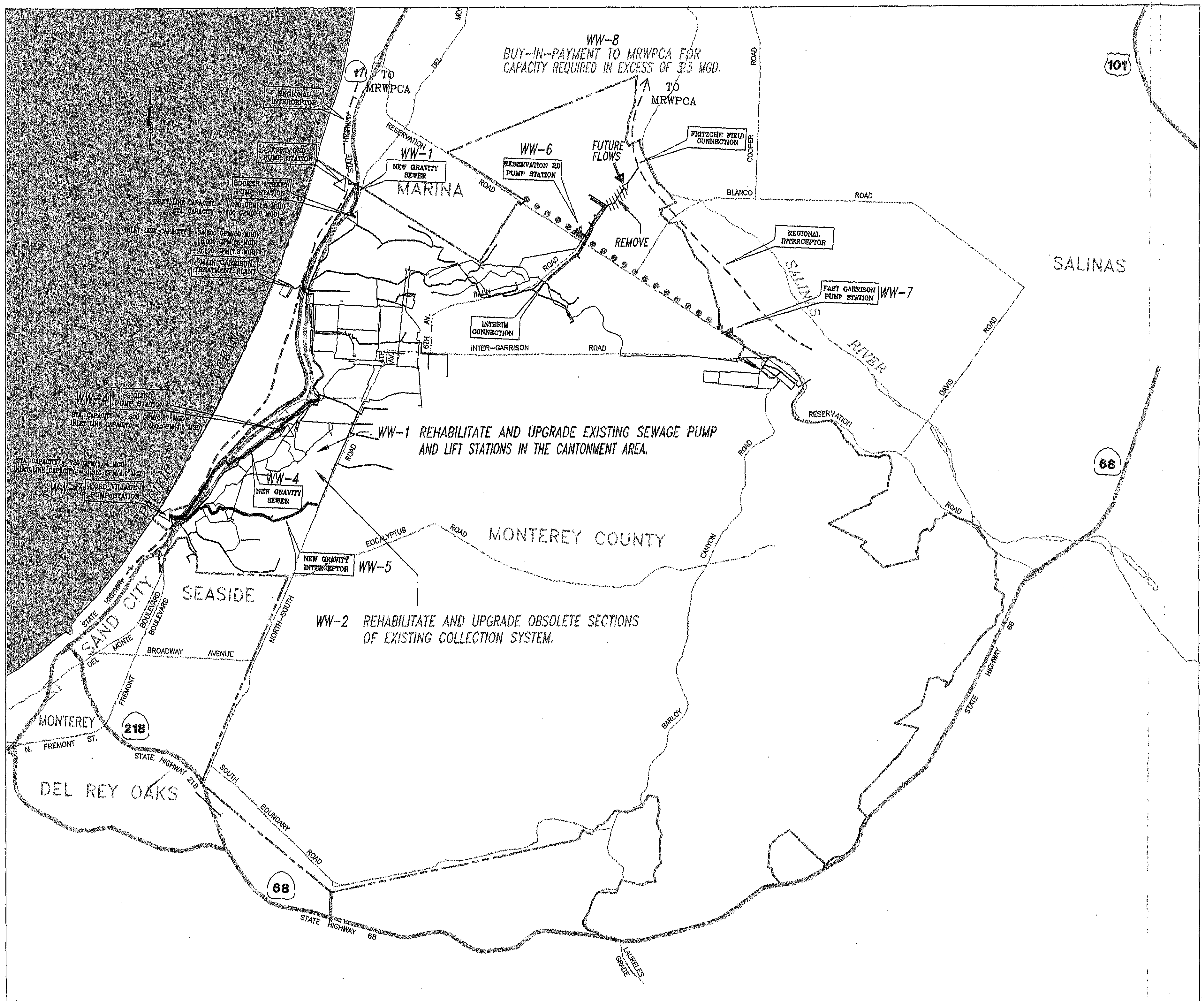
FIGURE PFIP 1-4

GRAPHIC SCALE 0 750 1500 3000 4500

NORTH

PLOT DATE: 3/6/96

DRAWN BY: EPA
CHECKED BY: POR



FORT ORD
CAPITAL IMPROVEMENT PROJECTS

Fort Ord Reuse Authority (FORA)

Land Planning	EDAW, Inc.
	EMC Planning Group, Inc.
Market Analysis	Sedway Kotin Mouchly Group
Transportation Engineering	JHK and Associates
Civil Engineering	Reimer Associates
Habitat Planning	Zander Associates
Public Communications	The Ingram Group

LEGEND:

- EXISTING WASTEWATER DISTRIBUTION SYSTEM
- REGIONAL INTERCEPTOR
- PROP. PUMP STATION
- EXIST. PUMP STATION
- PHASE I - 1996 / 2000
- PHASE II - 2001 / 2005
- PHASE III - 2006 / 2010
- PHASE IV - 2011 / 2015
- PHASE ALL - 1996 / 2015
- WW-# CIP PROJECT NUMBER

SOURCE:

DRAWING	DESCRIPTION	BY
NEWTRANS.DWG	PROPOSED TRANSPORTATION	EDAW
FTORDQDS.DWG	FORT ORD BACKGROUND	MCPD
BND-100.DWG	FORT ORD BOUNDARY	EDAW
UTIL.DWG	FORT ORD UTILITIES	RA

REIMER ASSOCIATES
INFRASTRUCTURE PLANNERS • CIVIL ENGINEERS • SURVEYORS

SHEET TITLE:

PHASED WASTEWATER SYSTEM TO THE YEAR 2015

FIGURE PFIP 1-5

GRAPHIC SCALE

NORTH

PLOT DATE: 3/6/96

PAGE: PFIP 1-52

DRAWN BY: EPA

CHECKED BY: POR

PFIP-2 05 - 04 INFRASTRUCTURE COST ANALYSIS

2.1 Summary of Probable Costs for 2015 Initial Phase of Ft Ord Base Reuse Plan

This 05-04 Infrastructure Cost Analysis has been formulated to allocate a "burden" of development costs to the array of land use categories included in the Fort Ord Base Reuse Plan as of Dec. 1995. (05-04 is the version identifier - signifying the 5th version of the Reuse Plan and the 4th modification to the infrastructure analysis on that plan. This nomenclature has been used since 1993). The costs included represent the upgrading of the "backbone" infrastructure systems which exist at Fort Ord and the selective expansion of those systems to serve the 2015 first phase of the Ultimate Base Reuse Plan. In addition, an intract development cost on a per acre basis is also identified which is representative of the investment by private developers in site grading, streets, utilities and local drainage in order to prepare a parcel for any of the several commercial/residential real estate uses which are part of the Base Reuse Plan. No demolition costs, except as noted, environmental clean up costs or on-going operation or maintenance costs are included.

In arriving at the development cost burden allocated to each land use category, the demand for service to be provided by the infrastructure systems is first predicted for each use by phase of development. That demand is proportioned to the total infrastructure system service requirement for all land uses and parcels included in the particular phase. The cost of infrastructure system upgrade and improvement is then assigned to each land use category based upon a percentage of total cost which represents the ratio of demand for service from the land use in respect to the total service demand by phase. Proportioned infrastructure costs allocated to each land use by acre are then accumulated for all of the "backbone" infrastructure systems. When appropriate, an intract development cost per acre is also added.

The tables which summarize the 05-04 Cost Analysis are arrayed in the following order:

SET 1 - LAND USE DISTRIBUTION

This table displays the land use categories by jurisdiction and lists the net acreage available for development. Source of this tabulation is the EDAW December 4, 1995 database which bifurcates the Base Reuse Plan land uses into pre-2015 and post-2015 time frames.

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS

A table for each infrastructure element which has a requirement for capital investment and/or for operational costs over the 20 year period to 2015 is included. Individually, these tables set forth the basis of demand for the infrastructure elements by land use category. A percentage of the total demand by infrastructure element is also calculated for each land use. Where applicable, other demand characteristics for the particular services are also reported which are relative to capacity constraints.

SET 3 - SCHEDULE OF PROBABLE CAPITAL COSTS

A table for each infrastructure element with the total requirement for capital investment over the 20 year period to 2015 is included. Individual projects reported in Section 1.7 are aggregated for each infrastructure category at the left side of each table and a cumulative cost reported for the time period through 2015. A portion of total cost is then assigned to each land use category based on either demand for services percentages calculated in SET 2 or in the case of the Transportation System it is an assigned percentage (a discussion of this is found in Chapter PFIP-5). The costs thus allocated are divided by the development area served resulting in an Incremental Cost for each Infrastructure Element per acre.

The last two tables in SET 3 summarize the totality of capital costs for each land use through 2015, first without regard to financing source and second, to reflect those costs which are likely to be real estate based.

Thus, the final page in the 05-04 Analysis tabulates a Total Burden of Development Costs per acre which reflects a true "nexus" of service/improvement demand and allocated capital cost. This particular format for the presentation of infrastructure costs leads directly to valuation analysis of base properties. A more conventional grouping of infrastructure capital cost by system can be found in Table PFIP 1-1 on page PFIP 1-3.

05-04 INFRASTRUCTURE COST ANALYSIS

2.2 SET 1

LAND USE DISTRIBUTION

Source: REIMER ASSOCIATES

SET 1 - LAND USE DISTRIBUTION

NET ACREAGE - PHASE I - 2015 (FROM EDAW DEC. 8, 1995 DATABASE)

35,137.7

LAND USE PARCEL DESIGNATION	SEASIDE DU/SF/ RMS/JOBS	SEASIDE NET DEV. ACRES	MARINA DU/SF/ RMS/JOBS	MARINA NET DEV. ACRES	COUNTY (incl. DRO & Monterey) DU/SF/ RMS/JOBS	COUNTY (incl. DRO & Monterey) NET DEV. ACRES	STATE PARKS DU/SF/ RMS/JOBS	STATE PARKS NET DEV. ACRES	TOTAL NET DEV. ACRES
RESIDENTIAL									
Existing Housing - Low (DU&AC)	0	0.0	1,522	413.0	0	0.0	0	0.0	413.0
Existing Housing - Med (DU&AC)	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Existing Housing - High (DU&AC)	291	24.3	0	0.0	0	0.0	0	0.0	24.3
New - Low Density (4/ac) (DU&AC)	500	125.0	0	0.0	0	0.0	0	0.0	125.0
New - Medium Density (6/ac) (DU&AC)	2,562	426.7	150	25.0	390	64.6	0	0.0	516.3
New - High Density (8/ac) (DU&AC)	512	64.0	1,648	206.0	0	0.0	0	0.0	270.0
New - Attached (10/ac) (DU&AC)	100	10.0	100	10.0	0	0.0	0	0.0	20.0
New - Attached (20/ac) (DU&AC)	200	10.0	0	0.0	0	0.0	0	0.0	10.0
Subtotal Residential	**4,165**	**660.0**	**3,420**	**654.0**	**390**	**64.6**	**0**	**0.0**	**1,378.6**
CSUMB Existing (DU&AC)	0	0.0	0	0.0	1,253	236.0	0	0.0	236.0
CSUMB New (DU&AC)	1,275	127.5	1,275	127.5	0	0.0	0	0.0	255.0
POM Annex Housing (DU&AC)	1,590	646.4	0	0.0	0	0.0	0	0.0	646.4
TOTAL Residential	**7,030**	**1,433.9**	**4,695**	**781.5**	**1,643**	**300.6**	**0**	**0.0**	**2,516.0**
RETAIL & VISITOR SERVING									
Convenience (SF&AC)	54,450	5.0	21,780	2.0	65,340	6.0	0	0.0	13.0
Neighborhoood (SF&AC)	250,470	23.0	174,240	16.0	0	0.0	0	0.0	39.0
Regional/Outlet (SF&AC)	250,470	23.0	250,470	23.0	0	0.0	0	0.0	46.0
Visitor Serving (ROOMS&AC)	500	15.0	200	15.0	300	15.0	0	0.0	45.0
TOTAL Retail & Visitor Serving		**66.0**		**56.0**		**21.0**		**0.0**	**143.0**
LI/BP & OFFICE/R&D									
UC MBEST (SF&AC)	0	0.0	439,085	36.0	1,310,198	107.0	0	0.0	143.0
LI/BP (SF&AC)	0	0.0	761,167	108.4	378,972	58.0	0	0.0	166.4
Office/R&D (SF&AC)	0	0.0	442,134	29.0	527,076	60.5	0	0.0	89.5
TOTAL LI/BP & OFFICE/R&D	**0**	**0.0**	**1,642,386**	**173.4**	**2,216,246**	**225.5**	**0**	**0.0**	**398.9**
PLANNED PUBLIC FACILITIES									
Other (JOBS&AC)	160	60.4	75	425.8	80	207.8	10	23.3	717.2
Military Enclave (JOBS&AC)	1,130	445.7	0	0.0	210	44.6	0	0.0	490.3
CSUMB (JOBS&AC)	1,200	38.6	400	13.0	0	0.0	0	0.0	51.6
Institutional (MPC,GGU,etc.) (JOBS&AC)	0	28.1	115	23.6	125	93.2	0	0.0	144.9
Public Schools (JOBS&AC)	150	98.5	25	25.2	0	0.0	0	0.0	123.7
TOTAL Public Facilities	**2,490**	**671.3**	**475**	**487.5**	**290**	**345.6**	**10**	**23.3**	**1,527.7**
OPEN SPACE & RECREATION									
Habitat Protection (SF&AC)	0	0.0	49,000	616.2	72,000	16,599.1	0	0.0	17,215.3
New Golf Courses (JOBS&AC)	0	0.0	35	184.7	35	149.0	0	0.0	333.7
State Parks (JOBS&AC)	0	13.9	0	0.0	0	0.0	20	918.8	932.8
Equestrian Centers (JOBS&AC)	0	0.0	0	0.0	20	50.0	0	0.0	50.0
Parks & Greens (JOBS&AC)	10	107.9	10	57.6	40	205.4	0	0.0	370.9
TOTAL OS & Recreation		**121.8**		**858.5**		**17,003.5**		**918.8**	**18,902.6**
ACREAGE BY JURISDICITON LESS HABITAT & PARKS		**2,171.2**		**1,683.0**		**1,091.7**		**23.3**	**4,969.2**

05-04 INFRASTRUCTURE COST ANALYSIS

2.3 SET 2

LAND USE INVENTORY AND DEMAND FORECASTS

Source: REIMER ASSOCIATES

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS - TRANSPORTATION

PHASE I

35,137.66

TRANSPORTATION AREA BY USE	BASIS OF TRIP GENERATION		TRIP ** GENERATION FACTOR		AVERAGE DAILY TRIPS (ADT) RESIDENTIAL	NON-RES	% OF TOTAL ADT	ALLOCATED TO PEAK HOUR	PM PEAK HOUR TRAFFIC IN	OUT
RESIDENTIAL										
Existing Housing - Low	1,522	DU	9.14	PER DU	13,911		6.86%	10%	974	417
Existing Housing - Med	0		6.34	PER DU	0		0.00%	10%	0	0
Existing Housing - High	291		5.46	PER DU	1,589		0.78%	10%	111	48
New - Low Density (4/ac)	500	DU	9.14	PER DU	4,570		2.25%	10%	320	137
New - Medium Density (6/ac)	3,102	DU	6.34	PER DU	19,668		9.69%	10%	1,377	590
New - High Density (8/ac)	2,160		6.34	PER DU	13,694		6.75%	10%	959	411
New - Attached (10/ac)	200	DU	5.46	PER DU	1,092		0.54%	9%	69	29
New - Attached (20/ac)	200	DU	5.46	PER DU	1,092		0.54%	9%	69	29
Subtotal Residential	**7,975**	**DU**			**55,616**		**27.41%**		**3,878**	**1,662**
CSUMB Existing	1,253	DU	INC. BELOW							
CSUMB New	2,550	DU	INC. BELOW							
POM Annex Housing	1,590	DU	INC. BELOW							
TOTAL Residential	**13,368**	**DU**			**55,616**		**27.41%**		**3,878**	**1,662**
RETAIL & VISITOR SERVING										
Convenience	315	EMP	15.65	PER EMP		4,923	2.43%	9%	222	222
Neighborhoood	944	EMP	15.65	PER EMP		14,770	7.28%	9%	665	665
Regional/Outlet	1,113	EMP	15.65	PER EMP		17,422	8.59%	9%	784	784
Visitor Serving	1,000	EMP/RM	9.14	PER RM		9,140	4.50%	7%	384	256
TOTAL Retail & Visitor Serving	**3,372**	**EMP**				**46,256**	**22.80%**		**2,054**	**1,926**
LI/BP & OFFICE/R&D										
UC MBEST	5,831	EMP	3.67	PER EMP		21,400	10.55%	14%	599	2,397
LI/BP	2,280	EMP	3.67	PER EMP		8,369	4.12%	14%	234	937
Office/R&D	3,231	EMP	3.67	PER EMP		11,857	5.84%	12%	285	1,138
TOTAL LI/BP & OFFICE/R&D	**11,342**	**EMP**				**41,625**	**20.52%**		**1,118**	**4,472**
PLANNED PUBLIC FACILITIES										
Other	190	EMP	1.34	PER EMP		255	0.13%	12%	6	24
Military Enclave	1,590	DU +	6.34	PER DU						
POM Annex, Golf, RC, DFAS, N. Guard	1,340	EMP	6	PER EMP	10,081	8,482	9.15%	12%	1,050	1,177
CSUMB	12,500	STD	1.58	PER STD	11,452	19,750	15.38%	9%	533	1,244
Institutional (MPC,GGU,etc.)	240	EMP	8.91	PER EMP		2,138	1.05%	8%	51	120
Public Schools	2,800	STD	1.25	PER STD		3,500	1.73%	5%	53	123
TOTAL Public Facilities					**21,533**	**34,125**	**27.43%**		**1,694**	**2,688**
OPEN SPACE & RECREATION										
Habitat Protection	15	EMP	1.34	PER EMP		20	0.01%	14%	1	2
New Golf Courses	2	# COURSES	1010	PER COURSE		2,020	1.00%	9%	55	127
State Parks	20	EMP	22.3	PER EMP		446	0.22%	7%	19	12
Equestrian Centers	20	EMP	15.65	PER EMP		313	0.15%	7%	13	9
Parks & Greens	60	EMP	15.65	PER EMP		939	0.46%	7%	39	26
TOTAL OS & Recreation						**3,738**	**1.84%**		**126**	**177**
TOTALS					**77,149**	**125,744**	**100.00%**		**8,870**	**10,926**
					TOTAL ADT	***202,893***	***TOTAL PM TRAFFIC***		***19,795***	***TRIPS***

** NOTE: JHK PROVIDED BASIS OF TRIP DEMAND FIGURES.

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS - WATER

PHASE I - 2015

35,137.66

WATER AREA BY USE	BASIS OF WATER DEMAND		WATER DEMAND FACTORS		(A) WATER DEMAND (AFY)	(B) WATER DMD (MGD) (A) X .00089	(C) RECLAIMED WATER OPT. (AFY)	(D) POTABLE WATER DMD INC. WATER IN RESERVE IN ( )		% OF PHASE DEMAND	(E) STORAGE PLANNED BY PRESSURE ZONE (MG)		
RESIDENTIAL													
Existing Housing - Low	1,522	DU	0.40	AFY/DU	609	0.54		(240)	609	11.99%	A	NEW	3.2
Existing Housing - Med	0	DU	0.30	AFY/DU	0	0.00			0	0.00%			
Existing Housing - High	291	DU	0.25	AFY/DU	73	0.06		(32)	73	1.43%			
New - Low Density (4/ac)	500	DU	0.40	AFY/DU	200	0.18		(75)	200	3.94%		EX	—
New - Medium Density (6/ac)	3,102	DU	0.30	AFY/DU	931	0.83		(306)	931	18.34%		DEMAND	3.2
New - High Density (8/ac)	2,160	DU	0.30	AFY/AC	648	0.58		(200)	648	12.77%			
New - Attached (10/ac)	200	DU	0.25	AFY/AC	50	0.04		(20)	50	0.99%			
New - Attached (20/ac)	200	DU	0.25	AFY/AC	50	0.04		(20)	50	0.99%			
Subtotal Residential	**7,975**	**DU**			**2,660**	**2.28**		(893)	**2,660**	**50.44%**	**B**	NEW	3.0
CSUMB Existing	1,253	DU	ASSIGNED BELOW										
CSUMB New	2,550	DU	ASSIGNED BELOW										
POM Annex Housing	1,590	DU	ASSIGNED BELOW									EX	2.0
TOTAL Residential	**13,368**	**DU**			**2,660**	**2.28**			**2,660**	**50.44%**		DEMAND	4.9
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	0.00021	AFY/SF	30	0.03	5		25	0.49%			
Neighborhoood	424,710	SF	0.00021	AFY/SF	89	0.08	9		80	1.58%			
Regional/Outlet	500,940	SF	0.00022	AFY/SF	110	0.10	14		96	1.90%	**C**		—
Visitor Serving	1,000	rooms	45	/300 rooms	150	0.13	17		133	2.62%		EX	4.0
TOTAL Retail & Visitor Serving	**1,067,220**	**SF**			**379**	**0.34**	**45**		**334**	**6.58%**		DEMAND	2.2
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	0.0001	AFY/SF	175	0.16	17		157	3.10%			
LI/BP	1,140,139	SF	0.00008	AFY/SF	91	0.08	9		82	1.62%			
Office/R&D	969,210	SF	0.00012	AFY/SF	116	0.10	15		102	2.00%	**D**	NEW	—
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**			**382**	**0.34**	**41**		**341**	**6.72%**		EX	2.0
PLANNED PUBLIC FACILITIES			200	GPD/EMP								DEMAND	1.9
Other	190	EMP	+ ASSIGNED		73	0.06	4		69	1.36%			
Military Enclave	POM Annex, Golf, RC, DFAS, N. Guard		Army Figure (1729 AFY) minus 10% for loss		1,556	1.38	630		926	ASSIGNED	**E**	NEW	1.3
CSUMB	542.6	AC	ASSIGNED		1,255	1.12	188		1,067	21.02%		EX	
Institutional (MPC,GGU,etc.) *1*	144.9	AC	2.65	AFY/AC	384	0.34	33		350	6.90%		DEMAND	1.3
Public Schools *2*	123.7	AC	2.2	AFY/AC	272	0.24	180		93	1.82%			
TOTAL Public Facilities					**3,540**	**3.15**	**1,035**		**2,505**	**31.10%**			
OPEN SPACE & RECREATION											**S5**	NEW	2.0
Habitat Protection	121,000	SF	0.00012	AFY/SF	15	0.01			15	0.29%		EX	—
New Golf Courses *4*	333.7	AC	ASSIGNED		640	0.57	630		10	0.20%		DEMAND	2.0
State Parks *3*	932.8	AC	ASSIGNED		49	0.04			49	0.97%			
Equestrian Centers	50.0	AC	ASSIGNED		60	0.05			60	1.18%			
Parks & Greens	370.9	AC	1.50	AFY/AC	556	0.50	428		128	2.52%			
TOTAL OS & Recreation					**1,320**	**1.17**	**1,058**		**261**	**5.15%**			
TOTALS			**A + 10% FOR LOSS**		**8,999**	**8.01**	C+10% **2,397**	D+10%	**6,602**	**B + 10%**	**TOTAL**		**17.5**

PHASE I WATER DEMAND W/ PROJECTED REUSE	**6,602 AFY**	***CUMULATIVE WATER DEMAND (AFY)***	**8,999**
		RECLAIMED OPT.	**2,397**

TO CALCULATE % OF PHASE DIVIDE (D) BY 5075 WHICH IS POTABLE DEMAND - MILITARY

1 - 17.5 AC = MPC & MIRA
84 AC = MPC (East Gar)/Post
6 AC = GGU 9 AC = MPC
28 AC = BOQ

2 - Public School AC includes 13 AC equivalent for Seaside HS

3 - Includes water supply assigned to State Parks area west of Hwy. 1 as noted to the right.

Use	Water Supply	Polygon
SA	2.0 AFY	14b
MUA	15.0 AFY	14a
DHZ	32.0 AFY	12b

4 - Golf Course demand includes 5 AFY allotment of potable water for each clubhouse facility.

5 - Single tank site for southwest area to serve multiple pressure zones.

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS - WASTEWATER

PHASE I - 2015

35,137.66

WASTEWATER AREA BY USE	BASIS OF WATER DEMAND		WATER DMD BASIS OF WASTEWATER FLOW (MGD)	WASTE-WATER FLOW FACTORS	AVERAGE FLOW RATES MGD	AVERAGE FLOW RATES GPM *1*	% OF PHASE DMD	I&I ADDED FLOW (GPM)	PEAK FLOW RATE (GPM)
RESIDENTIAL									
Existing Housing - Low	1,522	DU	0.54	210 GPD/DU	0.320	222	9.32%	22	577
Existing Housing - Med	0	DU	0.00	175 GPD/DU	0.000	0	0.00%	0	0
Existing Housing - High	291	DU	0.06	140 GPD/DU	0.041	28	1.19%	3	74
New - Low Density (4/ac)	500	DU	0.18	210 GPD/DU	0.105	73	3.06%	7	190
New - Medium Density (6/ac)	3,102	DU	0.83	175 GPD/DU	0.543	377	15.83%	38	980
New - High Density (8/ac)	2,160	DU	0.58	175 GPD/DU	0.378	263	11.02%	26	683
New - Attached (10/ac)	200	DU	0.04	140 GPD/DU	0.028	19	0.82%	2	51
New - Attached (20/ac)	200	DU	0.04	140 GPD/DU	0.028	19	0.82%	2	51
Subtotal Residential	**7,975**	**DU**	**2.28**		**1.442**	**1,002**	**42.06%**	**100**	**2,604**
CSUMB Existing	1,253	DU	INC. BELOW						
CSUMB New	2,550	DU	INC. BELOW						
POM Annex Housing	5,393	DU	INC. BELOW						
TOTAL Residential	**13,368**	**DU**	**2.28**		**1.442**	**1,002**	**42.06%**	**100**	**2,604**
RETAIL & VISITOR SERVING									
Convenience	141,570	SF	0.02	0.85	0.019	13	0.55%	1	34
Neighborhoood	424,710	SF	0.07	0.85	0.061	42	1.77%	4	110
Regional/Outlet	500,940	SF	0.09	0.85	0.073	51	2.12%	5	131
Visitor Serving	1,000	rooms	0.12	0.90	0.107	74	3.11%	7	192
TOTAL Retail & Visitor Serving	**1,067,220**	**SF**	**0.30**		**0.259**	**180**	**7.54%**	**18**	**467**
LI/BP & OFFICE/R&D									
UC MBEST	1,749,282	SF	0.14	0.90	0.126	88	3.68%	9	228
LI/BP	1,140,139	SF	0.07	0.90	0.066	46	1.92%	5	119
Office/R&D	969,210	SF	0.09	0.90	0.082	57	2.38%	6	147
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**0.30**		**0.273**	**190**	**7.97%**	**19**	**494**
PLANNED PUBLIC FACILITIES									
Other	190	EMP	0.06	0.90	0.055	38	1.61%	4	100
Military Enclave	POM Annex, Golf, RC, DFAS, N. Guard		0.82	0.90	0.742	515	ASSIGNED	52	1,339
CSUMB	Housing & Emp		0.95	0.90	0.854	593	24.92%	59	1,543
Institutional (MPC,GGU,etc.)	144.9	AC	0.31	0.90	0.281	195	8.19%	19	507
Public Schools	123.7	AC	0.08	0.95	0.078	54	2.28%	5	141
TOTAL Public Facilities			**2.23**		**2.010**	**1,396**	**37.00%**	**140**	**3,630**
OPEN SPACE & RECREATION									
Habitat Protection	121,000	SF	0.01	0.90	0.012	8	0.34%	1	21
New Golf Courses	333.7	AC	0.01	ASSIGNED	0.009	6	0.26%	1	16
State Parks	932.8	AC	0.04	0.70	0.031	21	0.89%	2	55
Equestrian Centers	50.0	AC	0.05	0.50	0.027	19	0.78%	2	48
Parks & Greens	370.9	AC	0.11	0.95	0.108	75	3.16%	8	195
TOTAL OS & Recreation			**0.23**		**0.186**	**129**	**5.43%**	**13**	**336**
TOTALS	without line loss		**5.34**		**4.17**	**2,896**	**100.00%**	**290**	**7,530**

CUMULATIVE WASTEWATER FLOWS ABOVE 3.3 MGD = ***0.87 MGD***

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
PARKS AND RECREATION
PHASE I - 2015

35137.75

PARKS AND RECREATION AREA BY USE	BASIS OF DEMAND		BASIS OF PARKS & REC. DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH *1*	POPULATION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	19.78%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0					0	0.00%
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437					437	1.89%
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	6.50%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	40.31%
New - High Density (8/ac)	2,160	DU	270.0	3.0	6,480	1.0	6,480					6,480	28.07%
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	2.17%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	1.30%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**23,089**	**100.00%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	0.0	0					0	
CSUMB New Units	2,550	DU	255.0	1.5	3,825	0.0	0					0	
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0	0					0	
TOTAL Residential	**13,368**	**DU**	**2,516.0**		35,443		**23,089**					**23,089**	
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.0		0	
Neighborhoood	424,710	SF	39.0					450	944	0.0		0	
Regional/Outlet	500,940	SF	46.0					450	1,113	0.0		0	
Visitor Serving	1000	RMS	45.0					1	1,000	0.0		0	
'TOTAL Retail & Visitor Serving			**143.0**						3,372			**0**	
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.0		0	
LI/BP	1,140,139	SF	166.4					500	2,280	0.0		0	
Office/R&D	969,210	SF	89.5					300	3,231	0.0		0	
'TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342			**0**	
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0		0	
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0		0	
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0		0	
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	240	0.0		0	
Public Schools	175	JOBS	123.7					ASSIGNED	175	0.0		0	
TOTAL Public Facilities	**3,545**	**JOBS**	**1,527.7**						3,545			**0**	
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0		0	
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.0		0	
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0		0	
Equestrian Centers	20	JOBS	50.0					ASSIGNED	20	0.0		0	
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0		0	
'TOTAL OS & Recreation			**18,902.6**						185			**0**	
TOTALS			**23,488.2**		35,443		**23,089**		18,444			**23,089**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

NOTE: PARKS & RECREATION COSTS ARE NOT CONSIDERED TO BE A BASE-WIDE COST AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
HABITAT MANAGEMENT
PHASE I - 2015

35137.75

HABITAT MANAGEMENT AREA BY USE	BASIS OF DEMAND		BASIS OF HABITAT DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH *1*	POPULA-TION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	14.89%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0					0	0.00%
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437					437	1.42%
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	4.89%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	30.34%
New - High Density (8/ac)	2,160	DU	270.0	3.0	6,480	1.0	6,480					6,480	21.13%
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	1.63%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	0.98%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**23,089**	**75.27%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	1.0	3,759					3,759	12.26%
CSUMB New Units	2,550	DU	255.0	1.5	3,825	1.0	3,825					3,825	12.47%
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0	0					0	
TOTAL Residential	**13,368**	**DU**	**2,516.0**		35,443		**30,673**					**30,673**	**100.00%**
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.0		0	
Neighborhoood	424,710	SF	39.0					450	944	0.0			
Regional/Outlet	500,940	SF	46.0					450	1,113	0.0		0	
Visitor Serving	1000	RMS	45.0					1	1,000	0.0		0	
'TOTAL Retail & Visitor Serving			**143.0**						3,372			**0**	
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.0		0	
LI/BP	1,140,139	SF	166.4					500	2,280	0.0		0	
Office/R&D	969,210	SF	89.5					300	3,231	0.0		0	
'TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342			**0**	
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0		0	
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0		0	
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0		0	
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	240	0.0		0	
Public Schools	175	JOBS	123.7					ASSIGNED	175	0.0		0	
TOTAL Public Facilities	**3,130**	**JOBS**	**1,527.7**						3,545			**0**	
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0		0	
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.0		0	
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0		0	
Equestrian Centers	20	JOBS	50.0					ASSIGNED	20	0.0		0	
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0		0	
'TOTAL OS & Recreation			**18,902.6**						185			**0**	
TOTALS			**23,488.2**		35,443		**30,673**		18,444			**30,673**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
FIRE PROTECTION
PHASE I - 2015

SET 3
FIRE PROTECTION SCREEN

35,137.81

FIRE PROTECTION AREA BY USE	BASIS OF DEMAND		BASIS OF FIRE DEMAND (NET DEV. AC)	*AMA* DEMAND FACTOR		ACRES SERVED	% OF DEMAND	*(NOTE 1)* % OF BURDEN	ALLOCATED COST OF ONE FIRE STATION @ $1,110,000	INCREMENTAL COST OF FIRE STATION BY AC.
RESIDENTIAL										
Existing Housing - Low	1,522	DU	413.0	1.0		413.0	11.82%	18.10%	$200,879	$486
Existing Housing - Med	0	DU	0.0	1.0		0.0	0.00%	0.00%	$0	$0
Existing Housing - High	291	DU	24.3	1.0		24.3	0.69%	1.06%	$11,810	$486
New - Low Density (4/ac)	500	DU	125.0	1.0		125.0	3.58%	5.48%	$60,799	$486
New - Medium Density (6/ac)	3,102	DU	516.3	1.0		516.3	14.78%	22.62%	$251,128	$486
New - High Density (8/ac)	2,160	DU	270.0	1.0		270.0	7.73%	11.83%	$131,325	$486
New - Attached (10/ac)	200	DU	20.0	1.0		20.0	0.57%	0.88%	$9,728	$486
New - Attached (20/ac)	200	DU	10.0	1.0		10.0	0.29%	0.44%	$4,864	$486
Subtotal Residential	**7,975**	**DU**	**1,378.6**			**1,378.6**	**39.46%**	**60.41%**	**$670,532**	
CSUMB Existing Units	1,253	DU	236.0	0.0		0.0	0.00%	0.00%	$0	$0
CSUMB New Units	2,550	DU	255.0	0.0		0.0	0.00%	0.00%	$0	$0
POM Annex Housing	1,590	DU	646.4	0.0		0.0	0.00%	0.00%	$0	$0
TOTAL Residential	**13,368**	**DU**	**2,516.0**							
RETAIL & VISITOR SERVING										
Convenience	141,570	SF	13.0	1.0		13.0	0.37%	0.57%	$6,323	$486
Neighborhoood	424,710		39.0	1.0		39.0	1.12%	1.71%	$18,969	$486
Regional/Outlet	500,940	SF	46.0	1.0		46.0	1.32%	2.01%	$22,353	$486
Visitor Serving	1,000	RMS	45.0	1.0		45.0	1.29%	1.97%	$21,888	$486
TOTAL Retail & Visitor Serving	**1,067,220**	**SF**	**143.0**			**143.0**	**4.09%**	**6.26%**	**$69,533**	
LI/BP & OFFICE/R&D										
UC MBEST	1,749,282	SF	143.0	1.0		143.0	4.09%	6.27%	$69,554	$486
LI/BP	1,140,139	SF	166.4	1.0		166.4	4.76%	7.29%	$80,921	$486
Office/R&D	969,210	SF	89.5	1.0		89.5	2.56%	3.92%	$43,532	$486
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**			**398.9**	**11.42%**	**17.48%**	**$194,006**	
PLANNED PUBLIC FACILITIES										
Other	190	JOBS	717.2	1.0		717.2	20.53%	0.00%	$0	$0
Military Enclave	1,340	JOBS	490.3	0.0		0.0	0.00%	0.00%	$0	$0
CSUMB	1,600	JOBS	51.6	0.0		0.0	0.00%	0.00%	$0	$0
Institutional (MPC,GGU,etc.)	240	JOBS	144.9	1.0		144.9	4.15%	6.35%	$70,463	$486
Public Schools	175	JOBS	123.7	1.0		123.7	3.54%	0.00%	$0	$0
TOTAL Public Facilities	**3,130**	**JOBS**	**1,527.7**			**985.8**	**28.21%**	**6.35%**	**$70,463**	
OPEN SPACE & RECREATION										
Habitat Protection	121,000	SF	17,215.3	0.0	1	0.0	0.00%	0.00%	$0	
New Golf Courses	70	JOBS	333.7	0.5	2	166.8	4.77%	7.31%	$81,147	$486
State Parks	20	JOBS	932.8	0.0		0.0	0.00%	0.00%	$0	
Equestrian Centers	20	JOBS	50.0	1.0		50.0	1.43%	2.19%	$24,319	$486
Parks & Greens	60	JOBS	370.9	1.0		370.9	10.61%	0.00%	$0	$0
TOTAL OS & Recreation			**18,902.6**			**587.7**	**16.82%**	**9.50%**	**$105,466**	
TOTALS			**23,488.2**			**3,493.9**	**100.00%**	**100.00%**	**$1,110,000**	

1 THE BURDEN OF FIRE PROTECTION IN THE HABITAT AREA IS SPREAD BACK TO RESIDENTIAL, COMMERCIAL, ETC.

2 SUBJECT TO REVISION AFTER DISCUSSION WITH FIRE OFFICALS

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

NOTE 1 Costs are spread based on a % of Burden which is calculated by spreading costs only to those uses that will be able to contribute and not to "public" type of uses (ie schools).

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS

GENERAL FACILITIES (office space, corporation yard, etc.)

PHASE I - 2015

35137.75

GENERAL FACILITIES AREA BY USE	BASIS OF DEMAND		BASIS OF GEN FACS. DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH *1*	POPULATION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	14.98%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0					0	0.00%
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437					437	1.43%
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	4.92%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	30.52%
New - High Density (8/ac)	2,160	DU	270.0	3.0	6,480	1.0	6,480					6,480	21.25%
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	1.64%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	0.98%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**23,089**	**75.72%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	0.0	0					0	
CSUMB New Units	2,550	DU	255.0	1.5	3,825	0.0	0					0	
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0	0					0	
TOTAL Residential	**13,368**	**DU**	**2,616.0**		35,443		**23,089**					**23,089**	
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.5	157	157	0.52%
Neighborhood	424,710		39.0					450	944	0.5	472	472	1.55%
Regional/Outlet	500,940	SF	46.0					450	1,113	0.5	557	557	1.83%
Visitor Serving	1,000	RMS	45.0					1	1,000	0.5	500	500	1.64%
TOTAL Retail & Visitor Serving			**143.0**						3,372		**1,686**	**1,686**	**5.53%**
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.5	2,915	2,915	9.56%
LI/BP	1,140,139	SF	166.4					500	2,280	0.5	1,140	1,140	3.74%
Office/R&D	969,210	SF	89.5					300	3,231	0.5	1,615	1,615	5.30%
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342		**6,671**	**5,671**	**18.60%**
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0			
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0			
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0			
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	240	0.0			
Public Schools	175	JOBS	123.7					ASSIGNED	175	0.0			
TOTAL Public Facilities	**3,545**	**JOBS**	**1,527.7**						3,545				
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0			
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.5	35	35	0.11%
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0			
Equestrian Centers	20	JOBS	50.0					ASSIGNED	20	0.5	10	10	0.03%
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0			
TOTAL OS & Recreation			**18,902.6**						185		**45**	**45**	**0.15%**
TOTALS			**23,488.2**		35,443		**23,089**		18,444		**7,402**	**30,491**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

NOTE: NO CAPITAL FACILITIES ARE ASSOCIATED WITH THIS SERVICE AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

Source: AMA

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
LAW ENFORCEMENT
PHASE I - 2015

35137.75

LAW ENFORCEMENT AREA BY USE	BASIS OF DEMAND		BASIS OF LAW ENF. DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH *1*	POPULATION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	19.37%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0						
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437						
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	6.36%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	39.48%
New - High Density (8/ac)	2,160		270.0	3.0	6,480	1.0	6,480						
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	2.12%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	1.27%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**16,172**	**68.60%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	0.0	0						
CSUMB New Units	2,550	DU	255.0	1.5	3,825	0.0	0						
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0	0						
TOTAL Residential	**13,368**	**DU**	**2,516.0**		35,443		**23,089**					**16,172**	
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.5	157	157	0.67%
Neighborhoood	424,710		39.0					450	944	0.5	472	472	2.00%
Regional/Outlet	500,940	SF	46.0					450	1,113	0.5	557	557	2.36%
Visitor Serving	1,000	RMS	45.0					1	1,000	0.5	500	500	2.12%
TOTAL Retail & Visitor Serving			**143.0**						3,372			**1,686**	**7.16%**
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.5	2,915	2,915	12.37%
LI/BP	1,140,139	SF	166.4					500	2,280	0.5	1,140	1,140	4.84%
Office/R&D	969,210	SF	89.5					300	3,231	0.5	1,615	1,615	6.85%
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342		**5,671**	**5,671**	**24.06%**
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0			
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0			
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0			
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	240	0.0			
Public Schools	175	JOBS	123.7					ASSIGNED	175	0.0			
TOTAL Public Facilities	**3,130**	**JOBS**	**1,527.7**						3,545				
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0			
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.5	35	35	0.15%
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0			
Equestrian Centers	20	JOBS	50.0					ASSIGNED	20	0.5	10	10	0.04%
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0			
TOTAL OS & Recreation			**18,902.6**						185		**45**	**45**	**0.19%**
TOTALS			**23,488.2**		35,443		**23,089**		18,444		**5,716**	**23,674**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

NOTE: NO CAPITAL FACILITIES ARE ASSOCIATED WITH THIS SERVICE AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

Source: AMA

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
SCHOOLS

PHASE I - 2015

35137.75

PARKS AND RECREATION AREA BY USE	BASIS OF DEMAND		BASIS OF SCHOOLS DEMAND (NET DEV. AC)	*SKMG* AVERAGE HOUSE SIZE (SF)	TOTAL DEMAND (000)	% OF DEMAND
RESIDENTIAL						
Existing Housing - Low	1,522	DU	413.0	1,400	2,131	10.23%
Existing Housing - Med	0	DU	0.0	1,400	0	0.00%
Existing Housing - High	291	DU	24.3	1,500	437	2.10%
New - Low Density (4/ac)	500	DU	125.0	2,700	1,350	6.48%
New - Medium Density (6/ac)	3,102	DU	516.3	2,300	7,135	34.26%
New - High Density (8/ac)	2,160	DU	270.0	2,300	4,968	23.86%
New - Attached (10/ac)	200	DU	20.0	1,500	300	1.44%
New - Attached (20/ac)	200	DU	10.0	1,000	200	0.96%
Subtotal Residential	**7,975**	DU	**1,378.6**		**16,520**	**79.33%**
CSUMB Existing Units	1,253	DU	236.0	1,400	1,754	8.42%
CSUMB New Units	2,550	DU	255.0	1,000	2,550	12.25%
POM Annex Housing	1,590	DU	646.4	#N/A	#N/A	
TOTAL Residential	**13,368**	DU	**2,516.0**		**20,824**	**100.00%**
RETAIL & VISITOR SERVING						
Convenience	141,570	SF	13.0			
Neighborhoood	424,710		39.0			
Regional/Outlet	500,940	SF	46.0			
Visitor Serving	1,000	RMS	45.0			
TOTAL Retail & Vistor Serving			**143.0**			
LI/BP & OFFICE/R&D						
UC MBEST	1,749,282	SF	143.0			
LI/BP	1,140,139	SF	166.4			
Office/R&D	969,210	SF	89.5			
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	SF	**398.9**			
PLANNED PUBLIC FACILITIES						
Other	190	JOBS	717.2			
Military Enclave	1,340	JOBS	490.3			
CSUMB	1,600	JOBS	51.6			
Institutional (MPC,GGU,etc.)	240	JOBS	144.9			
Public Schools	175	JOBS	123.7			
TOTAL Public Facilities	**3,130**	JOBS	**1,527.7**			
OPEN SPACE & RECREATION						
Habitat Protection	121,000	SF	17,215.3			
New Golf Courses	70	JOBS	333.7			
State Parks	20	JOBS	932.8			
Equestrian Centers	20	JOBS	50.0			
Parks & Greens	60	JOBS	370.9			
TOTAL OS & Recreation			**18,902.6**			
TOTALS			**23,488.2**		**20,824**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

EDAW = FIGURES FROM EDAW, INC.

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLEY GROUP

NOTE: NO CAPITAL FACILITIES ARE ASSOCIATED WITH THIS SERVICE AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

Source: AMA

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS

LIBRARIES

PHASE I - 2015

35137.75

LIBRARIES AREA BY USE	BASIS OF DEMAND		BASIS OF LIBRARY DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH *1*	POPULATION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	15.88%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0					0	0.00%
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437					437	1.52%
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	5.22%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	32.36%
New - High Density (8/ac)	2,160	DU	270.0	3.0	6,480	1.0	6,480					6,480	22.53%
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	1.74%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	1.04%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**23,089**	**80.28%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	0.0							
CSUMB New Units	2,550	DU	255.0	1.5	3,825	0.0							
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0							
TOTAL Residential	**13,368**	**DU**	**2,516.0**		35,443		**23,089**					**23,089**	
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.0			
Neighborhoood	424,710		39.0					450	944	0.0			
Regional/Outlet	500,940	SF	46.0					450	1,113	0.0			
Visitor Serving	1,000	RMS	45.0					1	1,000	0.0			
TOTAL Retail & Vistor Serving			**143.0**						3,372				
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.5	2,915	2,915	10.14%
LI/BP	1,140,139	SF	166.4					500	2,280	0.5	1,140	1,140	3.96%
Office/R&D	969,210	SF	89.5					300	3,231	0.5	1,615	1,615	5.62%
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342		**5,671**	**5,671**	**19.72%**
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0			
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0			
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0			
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	245	0.0			
Public Schools	175	JOBS	123.7					ASSIGNED	150	0.0			
TOTAL Public Facilities	**3,130**	**JOBS**	**1,527.7**						3,525				
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0			
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.0			
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0			
Equestrian Centers	20	JOBS	50.0					ASSIGNED	30	0.0			
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0			
TOTAL OS & Recreation			**18,902.6**						195				
TOTALS			**23,488.2**		35,443		**23,089**		18,434		**5,671**	**28,760**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

NOTE: NO CAPITAL FACILITIES ARE ASSOCIATED WITH THIS SERVICE AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

Source: AMA

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS

HUMAN SERVICES FACILITIES (Criminal Justice, Health Services, etc.)

PHASE I - 2015

35137.75

HUMAN SERVICES FACS AREA BY USE	BASIS OF DEMAND		BASIS OF HUMAN SRV. DEMAND (NET DEV. AC)	RESIDENTIAL SKMG/ *AMA* PPH 1	POPULATION	*AMA* DEMAND FACTOR	POPUL. SERVED	BLDG SF PER EMP FACTOR	EMPLOYMENT *EDAW* JOBS	*AMA* DEMAND FACTOR	POPUL. SERVED	TOTAL POPUL. SERVED	% OF DEMAND
RESIDENTIAL													
Existing Housing - Low	1,522	DU	413.0	3.0	4,566	1.0	4,566					4,566	14.89%
Existing Housing - Med	0	DU	0.0	2.5	0	1.0	0					0	0.00%
Existing Housing - High	291	DU	24.3	1.5	437	1.0	437					437	1.42%
New - Low Density (4/ac)	500	DU	125.0	3.0	1,500	1.0	1,500					1,500	4.89%
New - Medium Density (6/ac)	3,102	DU	516.3	3.0	9,306	1.0	9,306					9,306	30.34%
New - High Density (8/ac)	2,160	DU	270.0	3.0	6,480	1.0	6,480					6,480	21.13%
New - Attached (10/ac)	200	DU	20.0	2.5	500	1.0	500					500	1.63%
New - Attached (20/ac)	200	DU	10.0	1.5	300	1.0	300					300	0.98%
Subtotal Residential	**7,975**	**DU**	**1,378.6**		23,089		**23,089**					**23,089**	**75.27%**
CSUMB Existing Units	1,253	DU	236.0	3.0	3,759	1.0	3,759					3,759	12.26%
CSUMB New Units	2,550	DU	255.0	1.5	3,825	1.0	3,825					3,825	12.47%
POM Annex Housing	1,590	DU	646.4	3.0	4,770	0.0	0					0	0.00%
TOTAL Residential	**13,368**	**DU**	**2,616.0**		35,443		**30,673**					**30,673**	**100.00%**
RETAIL & VISITOR SERVING													
Convenience	141,570	SF	13.0					450	315	0.0			
Neighborhoood	424,710	SF	39.0					450	944	0.0			
Regional/Outlet	500,940	SF	46.0					450	1,113	0.0			
Visitor Serving	1,000	RMS	45.0					1	1,000	0.0			
'TOTAL Retail & Vistor Serving			**143.0**						3,372				
LI/BP & OFFICE/R&D													
UC MBEST	1,749,282	SF	143.0					300	5,831	0.0			
LI/BP	1,140,139	SF	166.4					500	2,280	0.0			
Office/R&D	969,210	SF	89.5					300	3,231	0.0			
'TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**						11,342				
PLANNED PUBLIC FACILITIES													
Other	190	JOBS	717.2					ASSIGNED	190	0.0			
Military Enclave	1,340	JOBS	490.3					ASSIGNED	1,340	0.0			
CSUMB	1,600	JOBS	51.6					ASSIGNED	1,600	0.0			
Institutional (MPC,GGU,etc.)	240	JOBS	144.9					ASSIGNED	240	0.0			
Public Schools	175	JOBS	123.7					ASSIGNED	175	0.0			
TOTAL Public Facilities	**3,545**	**JOBS**	**1,527.7**						3,545				
OPEN SPACE & RECREATION													
Habitat Protection	121,000	SF	17,215.3					ASSIGNED	15	0.0			
New Golf Courses	70	JOBS	333.7					ASSIGNED	70	0.0			
State Parks	20	JOBS	932.8					ASSIGNED	20	0.0			
Equestrian Centers	20	JOBS	50.0					ASSIGNED	20	0.0			
Parks & Greens	60	JOBS	370.9					ASSIGNED	60	0.0			
'TOTAL OS & Recreation			**18,902.6**						185				
TOTALS			**23,488.2**		35,443		**30,673**		18,444			**30,673**	**100.00%**

1 PPH = PERSONS PER HOUSEHOLD

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

EDAW = FIGURES FROM EDAW, INC.

SKMG = FIGURES FROM SEDWAY KOTIN MOUCHLY GROUP

NOTE: NO CAPITAL FACILITIES ARE ASSOCIATED WITH THIS SERVICE AND THEREFORE NO COST RELATED INFORMATION WILL BE FOUND IN SET 3.

Source: AMA

05-04 INFRASTRUCTURE COST ANALYSIS

2.4 SET 3

SCHEDULE OF PROBABLE CAPITAL COSTS

Source: REIMER ASSOCIATES

SET 3 - TRANSPORTATION SCREEN

PHASE I - 2015

35,137.81

ESTIMATED COST OF ROAD SYSTEM UPGRADE ALLOCATED TO FORT ORD PROPERTIES	CAPITAL COST (000s)	ESTIMATED COST OF ADDED TRANSPORTATION IMPROVEMENTS ALLOCATED TO FORT ORD PROPERTIES	CAPITAL COST (000s)
STAGE I & II *a.* INTERIM UPGRADES 26 +/- MILES	1,100 GRANT	MAJOR ARTERIAL ONSITE IMPROVEMENTS	38,930
SAFETY AND REHAB IMPROVEMENT ON STREETS IN CONTINUED USE 26 +/- MILES	5,600	REGIONAL ARTERIAL IMPROVEMENTS OFF-SITE INCLUDING R/W	26,460
INTERIM REHAB OF *b.* ARTERIALS SCHEDULED FOR REBUILDING	3,080	PARTICIPATION IN HWY 68	52,050
GATEWAY IMPROVEMENTS AT ENTRY POINTS	9,200 LESS 7,360 GRANT	FIXED GUIDEWAY FROM *c.* STATE HWY 1 THROUGH FORT ORD TO SALINAS INCLUDING R/W	0
		BUS ACQUSITION AND INTERMODAL TRANS. CENTER	8,550
TOTAL COST FOR UPGRADE	**$10,520**	**TOTAL COST FOR NEW IMPROVEMENTS**	**125,990**
CUMULATIVE COST FOR EXISTING SYSTEM UPGRADE PLUS ADDED TRANSPORTATION IMPROVEMENTS			**$136,510**

SEE TABLE PRJ-1 IN SECTION 1.7 FOR PROJECT DESCRIPTIONS

a. GRANT FUNDED PROJECTS NOT INCLUDED IN TOTAL.

b. ESTIMATED AT 15% OF COST OF REBUILDING.

c. BLANCO ROAD ROUTE - POST 2015

TRANSPORTATION AREA BY USE	*(NOTE 3)* % OF DUE BURDEN	ALLOCATED TRANS-PORTATION COSTS	DEVELOP-MENT AREA SERVED	INCRE-MENTAL COST OF TRANSPOR-TATION PER ACRE
RESIDENTIAL				
Existing Housing - Low	6.24%	$8,521,087	413.0	$20,632
Existing Housing - Med	0.00%	$0	0.0	$0
Existing Housing - High	1.04%	$1,417,400	24.3	$58,377
New - Low Density (4/ac)	2.05%	$2,799,306	125.0	$22,394
New - Medium Density (6/ac)	12.72%	$17,367,654	516.3	$33,638
New - High Density (8/ac)	8.86%	$12,093,001	270.0	$44,789
New - Attached (10/ac)	0.71%	$974,158	20.0	$48,708
New - Attached (20/ac)	0.53%	$727,819	10.0	$72,782
Subtotal Residential	**32.16%**	**$43,900,425**	**1,378.6**	
CSUMB Existing		INC. BELOW		
CSUMB New		INC. BELOW		
POM Annex Housing	0.00%	INC. BELOW		
TOTAL Residential	**32.16%**		**1,378.6**	
RETAIL & VISITOR SERVING				
Convenience	1.61%	$2,203,415	13.0	$169,493
Neighborhoood	2.96%	$4,042,237	39.0	$103,647
Regional/Outlet	3.02%	$4,122,716	46.0	$89,708
Visitor Serving	3.20%	$4,366,917	45.0	$97,043
TOTAL Retail & Visitor Serving	**10.79%**	**$14,735,284**	**143.0**	
LI/BP & OFFICE/R&D				
UC MBEST	19.08%	$26,050,849	143.0	$182,174
LI/BP	6.13%	$8,361,989	166.4	$50,261
Office/R&D	10.57%	$14,433,772	89.5	$161,271
TOTAL LI/BP & OFFICE/R&D	**35.78%**	**$48,846,610**	**398.9**	
PLANNED PUBLIC FACILITIES				
Other	0.00%	$0	717.2	**$0**
Military Enclave	0.00%	$0	1,136.7	$0
CSUMB	18.98%	$25,910,373	542.6	$47,754
Institutional (MPC,GGU,etc.)	1.25%	$1,706,457	144.9	$11,779
Public Schools	0.00%	$0	123.7	$0
TOTAL Public Facilities	**20.23%**	**$27,616,830**	**2,665.1**	
OPEN SPACE & RECREATION				
Habitat Protection	0.00%	$0	17,215.3	$0
New Golf Courses	0.90%	$1,231,695	333.7	$3,691
State Parks	0.00%	$0	932.8	$0
Equestrian Centers	0.13%	$179,156	50.0	$3,583
Parks & Greens	0.00%	$0	370.9	$0
TOTAL OS & Recreation	**1.03%**	**$1,410,850**	**18,902.6**	
TOTALS	**100.00%**	**$136,510,000**	**23,488.2**	

NOTE 3: The basis for this % comes from a Dwelling Unit Equivalent (DUE) calculation. Please refer to section 1.6.3 for a detailed discussion. Costs are spread based on a % of Burden which is calculated by spreading costs only to those uses that will be able to contribute and not to "public" type of uses (ie schools).

SET 3 - WATER SCREEN

PHASE I - 2015

35,137.77

ESTIMATED COST OF UPGRADE TO MAINTAIN OPERATIONS	CAPITAL COST (000s)	ESTIMATED COST OF ADDED WATER SYSTEM COMPONENTS	CAPITAL COST (000s)
UPGRADE SOURCE AND TREATMENT *a.*	2,920 GRANT		
UPGRADE/REPAIR OF STORAGE TANKS	560	SOURCE/ TREATMENT COST - WELLS *b.* DESALINATION PLANT	NONE
UPGRADE/REPAIR OF PUMPING STATIONS	3,150	STORAGE TANK, BOOSTER PUMPING STATION, & CONNECTION PIPELING COSTS	6,790
		REUSED WATER TRANSMISSION SYSTEM COST *c.*	NONE
UPGRADE/REPAIR OF EXISTING MAJOR PIPELINES	6,470	ADDITIONAL WATER SUPPLY 1,325 AFY DESAL PLANT	8,770
METERING	720	DISTRIBUTION PIPELINE COST	11,740
TOTAL COST FOR UPGRADE *d.*	**$10,900**	**TOTAL COST FOR NEW WATER SYSTEM**	**27,300**
CUMULATIVE COST FOR EXISTING SYSTEM UPGRADE PLUS ADDED WATER SYSTEM COMPONENTS			**$38,200**

SEE TABLE PRJ-2 IN SECTION 1.7 FOR PROJECT DESCRIPTIONS

a. GRANT FUNDED PROJECTS NOT INCLUDED IN TOTAL.
b. USE MCWD WELL FOR DEEP AQUIFER SUPPLY.
c. ANTICIPATES FINANCING BY OTHER PUBLIC AGENCIES.
d. AN ADDITIONAL $4,230,000 IS ALLOCATED TO THE POM ANNEX BASED ON THE 25% SHARE FACTOR IN THE JONES & STOKES REPORT TO THE ARMY.

NOTE 1: Costs are spread based on a % of Burden which is calculated by spreading costs only to those uses that will be able to contribute and not to "public" type of uses (ie schools).

WATER AREA BY USE	(NOTE 1) % OF BURDEN	ALLOCATED WATER COSTS BASED ON % OF WATER DMD	DEVELOP-MENT AREA SERVED	INCREMENTAL COST OF WATER SERVICE PER ACRE
RESIDENTIAL				
Existing Housing - Low	12.89%	$4,924,262	413.0	$11,923
Existing Housing - Med	0.00%	$0	0.0	$0
Existing Housing - High	1.54%	$588,436	24.3	$24,235
New - Low Density (4/ac)	4.23%	$1,617,694	125.0	$12,942
New - Medium Density (6/ac)	19.71%	$7,527,462	516.3	$14,579
New - High Density (8/ac)	13.72%	$5,241,330	270.0	$19,412
New - Attached (10/ac)	1.06%	$404,424	20.0	$20,221
New - Attached (20/ac)	1.06%	$404,424	10.0	$40,442
Subtotal Residential	**54.21%**	**$20,708,031**	**1,378.6**	
CSUMB Existing	0.00%	INC. BELOW		
CSUMB New	0.00%	INC. BELOW		
POM Annex Housing	0.00%	INC. BELOW		
TOTAL Residential	**54.21%**		**1,378.6**	
RETAIL & VISITOR SERVING				
Convenience	0.52%	$200,025	13.0	$15,387
Neighborhoood	1.70%	$648,607	39.0	$16,631
Regional/Outlet	2.04%	$778,166	46.0	$16,933
Visitor Serving	2.82%	$1,075,767	45.0	$23,906
TOTAL Retail & Visitor Serving	**7.07%**	**$2,702,565**	**143.0**	
LI/BP & OFFICE/R&D				
UC MBEST	3.33%	$1,273,412	143.0	$8,905
LI/BP	1.74%	$663,983	166.4	$3,991
Office/R&D	2.15%	$823,140	89.5	$9,197
TOTAL LI/BP & OFFICE/R&D	**7.23%**	**$2,760,535**	**398.9**	
PLANNED PUBLIC FACILITIES				
Other	0.00%	$0	717.2	$0
Military Enclave	ASSIGNED	< $4,230,000>	1,136.7	$3,721
CSUMB	22.59%	$8,628,377	542.6	$15,902
Institutional (MPC,GGU,etc.)	7.42%	$2,834,299	144.9	$19,564
Public Schools	0.00%	$0	123.7	$0
TOTAL Public Facilities	**30.01%**	**$11,462,676**	**2,665.1**	
OPEN SPACE & RECREATION				
Habitat Protection	0.00%	$0	17,215.3	$0
New Golf Courses	0.21%	$80,885	333.7	$242
State Parks	0.00%	$0	932.8	$0
Equestrian Centers	1.27%	$485,308	50.0	$9,706
Parks & Greens	0.00%	$0	370.9	$0
TOTAL OS & Recreation	**1.48%**	**$566,193**	**18,902.6**	
TOTALS	**100.00%**	**$38,200,000**	**23,488.2**	

SET 3 - WASTEWATER SCREEN

PHASE I - 2015

35,137.77

ESTIMATED COST OF UPGRADE TO MAINTAIN OPERATIONS	CAPITAL COST (000s)	ESTIMATED COST OF ADDED WASTEWATER SYSTEM COMPONENTS	CAPITAL COST (000s)
UPGRADE/REPAIR OF PUMPS AND LIFT STATIONS *a.*	1,330 GRANT	BUY-IN TO MRWPCA *c.*	7,700
CLEAN/TELEVISE AND REPALACE DETERIOATED PORTIONS OF TRUNK SEWERS AND FORCE MAINS	GRANT CORPS CONTRACT	REPLACE OBSOLETE SECTIONS *b.*	1,800
DIVIDE COLLECTION SYSTEM, BYPASS GIGLING PUMP STATION, AND UPGRADE ORD VILLAGE PUMP STATION		SYSTEM TO SERVE SW AREA *d.*	NONE
		LIFT STATION INTERCEPTORS AND FORCE MAINS *c.*	1,130
TOTAL COST FOR UPGRADE	***GRANT & ARMY FUNDED***	**TOTAL COST FOR NEW FACILITIES**	**10,630**
COST FOR EXISTING SYSTEM UPGRADE PLUS ADDED WASTEWATER SYSTEM COMPONENTS			**$10,630**

SEE TABLE PRJ-3 IN SECTION 1.7 FOR PROJECT DESCRIPTIONS

a. GRANT FUNDED PROJECTS NOT INCLUDED IN TOTAL.

b. BASED ON JONES & STOKES REPORT TO THE ARMY ON UPGRADE COSTS

c. BUY-IN COSTS ARE CALCULATED ON THE BASIS OF $10 PER GALLON PER DAY. THE ASSUMPTION IS MADE THAT THE CURRENT ARMY CAPACITY IN THE REGION TREATMENT PLAN (3.3 MGD - POM ANNEX FLOW) WILL BE AVAILABLE TO SERVE THE REUSE AREA WITHOUT CHARGE.

d. LOW INITIAL FLOWS CAN BE ACCOMMODATED IN EXISTING SYSTEM. UPSIZING REQUIRED POST 2015.

NOTE 1: Costs are spread based on a % of Burden which is calculated by spreading costs only to those uses that will be able to contribute and not to "public" type of uses (ie schools).

WASTEWATER AREA BY USE	*(NOTE 1)* % OF BURDEN	ALLOCATED WASTEWATER COSTS BASED ON % OF DMD	DEVELOP-MENT AREA SERVED	INCREMENTAL COST OF WASTE-WATER SERVICE PER ACRE
RESIDENTIAL				
Existing Housing - Low	10.16%	$1,080,257	413.0	$2,616
Existing Housing - Med	0.00%	$0	0.0	$0
Existing Housing - High	1.30%	$137,694	24.3	$5,671
New - Low Density (4/ac)	3.34%	$354,881	125.0	$2,839
New - Medium Density (6/ac)	17.26%	$1,834,814	516.3	$3,554
New - High Density (8/ac)	12.02%	$1,277,571	270.0	$4,732
New - Attached (10/ac)	0.89%	$94,635	20.0	$4,732
New - Attached (20/ac)	0.89%	$94,635	10.0	$9,463
Subtotal Residential	**45.86%**	**$4,874,487**	**1,378.6**	
CSUMB Existing	0.00%	INC. BELOW		
CSUMB New	0.00%	INC. BELOW		
POM Annex Housing	0.00%	INC. BELOW		
TOTAL Residential	**45.86%**		**1,378.6**	
RETAIL & VISITOR SERVING				
Convenience	0.59%	$63,230	13.0	$4,864
Neighborhoood	1.93%	$205,030	39.0	$5,257
Regional/Outlet	2.31%	$245,985	46.0	$5,353
Visitor Serving	3.39%	$360,062	45.0	$8,001
TOTAL Retail & Visitor Serving	**8.22%**	**$874,306**	**143.0**	
LI/BP & OFFICE/R&D				
UC MBEST	4.01%	$426,214	143.0	$2,981
LI/BP	2.09%	$222,237	166.4	$1,336
Office/R&D	2.59%	$275,507	89.5	$3,078
TOTAL LI/BP & OFFICE/R&D	**8.69%**	**$923,959**	**398.9**	
PLANNED PUBLIC FACILITIES				
Other	0.00%	$0	717.2	$0
Military Enclave	ASSIGNED	< $366,000>	1,136.7	$322
CSUMB	27.17%	$2,887,941	542.6	$5,323
Institutional (MPC,GGU,etc.)	8.92%	$948,648	144.9	$6,548
Public Schools	0.00%	$0	123.7	$0
TOTAL Public Facilities	**36.09%**	**$3,836,589**	**2,665.1**	
OPEN SPACE & RECREATION				
Habitat Protection	0.00%	$0	17,215.3	$0
New Golf Courses	0.29%	$30,418	333.7	$91
State Parks	0.00%	$0	932.8	$0
Equestrian Centers	0.85%	$90,241	50.0	$1,805
Parks & Greens	0.00%	$0	370.9	$0
TOTAL OS & Recreation	**1.14%**	**$120,659**	**18,902.6**	
TOTALS	**100.00%**	**$10,630,000**	**23,488.2**	

SET 3 - HABITAT MANAGEMENT SCREEN

PHASE I - 2015

35,137.81

ESTIMATED COST OF MANAGEMENT PLANS	CAPITAL COST (000s)	ESTIMATED COST OF RESTORATION	CAPITAL COST (000s)
FIRE RESTORATION AND MANAGEMENT PLAN	20	ROAD RESTORATION AND REVEGETATION	189
		LIMITED FENCING, SIGNS AND GATES	450
		MISCELLANEOUS	9
TOTAL COST FOR MANAGEMENT PLANS	20	TOTAL COST FOR RESTORATION	648
CUMULATIVE COST FOR HABITAT MANAGEMENT			$668

SEE TABLE PRJ-6 IN SECTION 1.7 FOR PROJECT DESCRIPTIONS

NOTE 2: Habitat Management Costs are spread only to residential uses.

HABITAT MANAGEMENT AREA BY USE	(NOTE 2) % OF BURDEN	ALLOCATED HABITAT COSTS BASED ON % OF DMD	NET DEVELOP-MENT AREA SERVED	INCREMENTAL COST OF HABITAT SERVICE PER ACRE
RESIDENTIAL				
Existing Housing - Low	14.89%	$99,439	413.0	$241
Existing Housing - Med	0.00%	$0	0.0	$0
Existing Housing - High	1.42%	$9,506	24.3	$392
New - Low Density (4/ac)	4.89%	$32,667	125.0	$261
New - Medium Density (6/ac)	30.34%	$202,677	516.3	$393
New - High Density (8/ac)	21.13%	$141,123	270.0	$523
New - Attached (10/ac)	1.63%	$10,889	20.0	$544
New - Attached (20/ac)	0.98%	$6,533	10.0	$653
Subtotal Residential	**75.27%**	**$502,834**	**1,378.6**	
CSUMB Existing	12.26%	$81,864	236.0	$347
CSUMB New	12.47%	$83,302	255.0	$327
POM Annex Housing	0.00%	$0	646.4	$0
TOTAL Residential	**100.00%**	**$668,000**	**2,516.0**	
RETAIL & VISITOR SERVING				
Convenience		$0	13.0	$0
Neighborhoood		$0	39.0	$0
Regional/Outlet		$0	46.0	$0
Visitor Serving		$0	45.0	$0
TOTAL Retail & Visitor Serving		**$0**	**143.0**	
LI/BP & OFFICE/R&D				
UC MBEST		$0	143.0	$0
LI/BP		$0	166.4	$0
Office/R&D		$0	89.5	$0
TOTAL LI/BP & OFFICE/R&D		**$0**	**398.9**	
PLANNED PUBLIC FACILITIES				
Other		$0	717.2	$0
Military Enclave		$0	490.3	$0
CSUMB		$0	51.6	$0
Institutional (MPC,GGU,etc.)		$0	144.9	$0
Public Schools		$0	123.7	$0
TOTAL Public Facilities		**$0**	**1,527.7**	
OPEN SPACE & RECREATION				
Habitat Protection		$0	17,215.3	$0
New Golf Courses		$0	333.7	$0
State Parks		$0	0.0	#DIV/0!
Equestrian Centers		$0	50.0	$0
Parks & Greens		$0	0.0	$0
TOTAL OS & Recreation		**$0**	**17,599.0**	
TOTALS	**100.00%**	**$668,000**	**22,184.5**	

SET 2 - LAND USE INVENTORY AND DEMAND FORECASTS
FIRE PROTECTION
PHASE I - 2015

SET 3
FIRE PROTECTION SCREEN

35,137.81

FIRE PROTECTION AREA BY USE	BASIS OF DEMAND		BASIS OF FIRE DEMAND (NET DEV. AC)	*AMA* DEMAND FACTOR		ACRES SERVED	% OF DEMAND	*(NOTE 1)* % OF BURDEN	ALLOCATED COST OF ONE FIRE STATION @ $1,110,000	INCREMENTAL COST OF FIRE STATION BY AC.
RESIDENTIAL										
Existing Housing - Low	1,522	DU	413.0	1.0		413.0	11.82%	18.10%	$200,879	$486
Existing Housing - Med	0	DU	0.0	1.0		0.0	0.00%	0.00%	$0	$0
Existing Housing - High	291	DU	24.3	1.0		24.3	0.69%	1.06%	$11,810	$486
New - Low Density (4/ac)	500	DU	125.0	1.0		125.0	3.58%	5.48%	$60,799	$486
New - Medium Density (6/ac)	3,102	DU	516.3	1.0		516.3	14.78%	22.62%	$251,128	$486
New - High Density (8/ac)	2,160	DU	270.0	1.0		270.0	7.73%	11.83%	$131,325	$486
New - Attached (10/ac)	200	DU	20.0	1.0		20.0	0.57%	0.88%	$9,728	$486
New - Attached (20/ac)	200	DU	10.0	1.0		10.0	0.29%	0.44%	$4,864	$486
Subtotal Residential	**7,975**	**DU**	**1,378.6**			**1,378.6**	**39.46%**	**60.41%**	**$670,532**	
CSUMB Existing Units	1,253	DU	236.0	0.0		0.0	0.00%	0.00%	$0	$0
CSUMB New Units	2,550	DU	255.0	0.0		0.0	0.00%	0.00%	$0	$0
POM Annex Housing	1,590	DU	646.4	0.0		0.0	0.00%	0.00%	$0	$0
TOTAL Residential	**13,368**	**DU**	**2,516.0**							
RETAIL & VISITOR SERVING										
Convenience	141,570	SF	13.0	1.0		13.0	0.37%	0.57%	$6,323	$486
Neighborhoood	424,710		39.0	1.0		39.0	1.12%	1.71%	$18,969	$486
Regional/Outlet	500,940	SF	46.0	1.0		46.0	1.32%	2.01%	$22,353	$486
Visitor Serving	1,000	RMS	45.0	1.0		45.0	1.29%	1.97%	$21,888	$486
TOTAL Retail & Visitor Serving	**1,067,220**	**SF**	**143.0**			**143.0**	**4.09%**	**6.26%**	**$69,533**	
LI/BP & OFFICE/R&D										
UC MBEST	1,749,282	SF	143.0	1.0		143.0	4.09%	6.27%	$69,554	$486
LI/BP	1,140,139	SF	166.4	1.0		166.4	4.76%	7.29%	$80,921	$486
Office/R&D	969,210	SF	89.5	1.0		89.5	2.56%	3.92%	$43,532	$486
TOTAL LI/BP & OFFICE/R&D	**3,858,632**	**SF**	**398.9**			**398.9**	**11.42%**	**17.48%**	**$194,006**	
PLANNED PUBLIC FACILITIES										
Other	190	JOBS	717.2	1.0		717.2	20.53%	0.00%	$0	$0
Military Enclave	1,340	JOBS	490.3	0.0		0.0	0.00%	0.00%	$0	$0
CSUMB	1,600	JOBS	51.6	0.0		0.0	0.00%	0.00%	$0	$0
Institutional (MPC,GGU,etc.)	240	JOBS	144.9	1.0		144.9	4.15%	6.35%	$70,463	$486
Public Schools	175	JOBS	123.7	1.0		123.7	3.54%	0.00%	$0	$0
TOTAL Public Facilities	**3,130**	**JOBS**	**1,527.7**			**985.8**	**28.21%**	**6.35%**	**$70,463**	
OPEN SPACE & RECREATION										
Habitat Protection	121,000	SF	17,215.3	0.0	*1*	0.0	0.00%	0.00%	$0	
New Golf Courses	70	JOBS	333.7	0.5	*2*	166.8	4.77%	7.31%	$81,147	$486
State Parks	20	JOBS	932.8	0.0		0.0	0.00%	0.00%	$0	
Equestrian Centers	20	JOBS	50.0	1.0		50.0	1.43%	2.19%	$24,319	$486
Parks & Greens	60	JOBS	370.9	1.0		370.9	10.61%	0.00%	$0	$0
TOTAL OS & Recreation			**18,902.6**			**587.7**	**16.82%**	**9.50%**	**$105,466**	
TOTALS			**23,488.2**			**3,493.9**	**100.00%**	**100.00%**	**$1,110,000**	

1 THE BURDEN OF FIRE PROTECTION IN THE HABITAT AREA IS SPREAD BACK TO RESIDENTIAL, COMMERCIAL, ETC.

2 SUBJECT TO REVISION AFTER DISCUSSION WITH FIRE OFFICALS

AMA = FIGURES FROM ANGUS MCDONALD & ASSOCIATES

NOTE 1 Costs are spread based on a % of Burden which is calculated by spreading costs only to those uses that will be able to contribute and not to "public" type of uses (ie schools).

SET 3 - SUMMARY COST SCREEN FOR ALL CAPITAL IMPROVEMENTS

PHASE I - 2015

35,137.80

ALL SYSTEMS AREA BY USE	CAPITAL COST PER NET DEVELOPMENT ACRE TRANS-PORTATION	WATER	WASTE-WATER	HABITAT	FIRE	INTRACT DEVEL. *1* COST PER ACRE Inc. DRAINAGE BENEFIT FEE AS APPLICABLE	TOTAL BURDEN OF DEVELOPMENT COSTS PER ACRE
RESIDENTIAL							
Existing Housing - Low	$20,632	$11,923	$2,616	$241	$486	VARIES WITH UPGRADE	$35,898
Existing Housing - Med	$0	$0	$0	$0	$0		$0
Existing Housing - High	$58,377	$24,235	$5,671	$392	$486		$89,162
New - Low Density (4/ac)	$22,394	$12,942	$2,839	$261	$486	$80,000	$118,923
New - Medium Density (6/ac)	$33,638	$14,579	$3,554	$393	$486	$105,000	$157,650
New - High Density (8/ac)	$44,789	$19,412	$4,732	$523	$486	$105,000	$174,942
New - Attached (10/ac)	$48,708	$20,221	$4,732	$544	$486	$106,750 *2*	$181,442
New - Attached (20/ac)	$72,782	$40,442	$9,463	$653	$486	$105,000	$228,828
Subtotal Residential							
CSUMB Existing	INCLUDED BELOW						
CSUMB New	INCLUDED BELOW						
POM Annex Housing	INCLUDED BELOW						
TOTAL Residential							
RETAIL & VISITOR SERVING							
Convenience	$169,493	$15,387	$4,864	$0	$486	$75,000	$265,230
Neighborhoood	$103,647	$16,631	$5,257	$0	$486	$75,000	$201,022
Regional/Outlet	$89,708	$16,933	$5,353	$0	$486	$76,500 *2*	$188,980
Visitor Serving	$97,043	$23,906	$8,001	$0	$486	$75,000	$204,436
TOTAL Retail & Visitor Serving							
LI/BP & OFFICE/R&D							
UC MBEST	$182,174	$8,905	$2,981	$0	$486	$69,000	$263,546
LI/BP	$50,261	$3,991	$1,336	$0	$486	$61,500	$117,575
Office/R&D	$161,271	$9,197	$3,078	$0	$486	$70,500 *2*	$244,533
TOTAL LI/BP & OFFICE/R&D							
PLANNED PUBLIC FACILITIES							
Other	$0	$0	$0	$0	$0		$0
Military Enclave	$0	$3,721	$322	$0	$0		$4,043
CSUMB	$47,754	$15,902	$5,323	$674	$0	$1750/AC ON 537 AC. *2*	$71,403
Institutional (MPC,GGU,etc.) #	$11,779	$19,564	$6,548	$0	$486	$3,500 *3*	$41,878
Public Schools #	$0	$0	$0	$0	$0	#N/A	$0
TOTAL Public Facilities							
OPEN SPACE & RECREATION							
Habitat Protection	$0	$0	$0	$0	$0	#N/A	$0
New Golf Courses #	$3,691	$242	$91	$0	$486	$3,500 *3*	$8,011
State Parks #	$0	$0	$0	$0	$0	#N/A	$0
Equestrian Centers	$3,583	$9,706	$1,805	$0	$486		$15,580
Parks & Greens	$0	$0	$0	$0	$0	#N/A	$0
TOTAL OS & Recreation							

1. BASED ON REIMER ASSOCIATES EXPERIENCE + 15% CONTINGENCY

2. INCLUDES DRAINAGE BENEFIT ASSESSMENT WHICH IS CALCULATED AS SHOWN IN TABLE PRJ-6

3. BASED ON 36 HOLES @ $30,000/HOLE

PFIP 3. Operational Conditions and Capital Improvement Projects (CIP) Budget

3.1 BASIS FOR THIS CHAPTER

This chapter has been prepared as part of the Operation Plan Component of the Fort Ord Base Reuse Plan. The information presented here is based upon current base reuse planning efforts by the EDAW/EMC Team and draws from assumptions, strategies and findings as prepared by this Team. The foundation for the analysis contained in the Operation Plan is EDAW's November 2, 1995, land use/employment/residential forecasts, which were revised/updated on November 14, 1995 and on December 4, 1995.

As is apparent, no capital improvement costs are included for electrical, gas or communication systems. It is assumed that transfer of these facilities will take the form of negotiated sales between the Army and qualified private utilities. Therefore systems upgrade and expansion costs are expected to be included in the rate structure of those utilities.

The work related to the infrastructure systems draws from the original work completed by Reimer Associates in the Fort Ord Reuse Infrastructure Study (FORIS) Master Plan Report. In addition, the information developed by Reimer Associates for the Defense Conversion Action Grant Application has been taken into account in the selection of projects. The transportation project selection and allocation of costs was based upon JHK's rerun of the TAMC model and reflects the 2015 land use forecasts presented to FORA by EDAW/EMC.

Additional background and input for this report comes from conversations and interviews with Monterey County, the Cities of Seaside and Marina and other appropriate local and regional agencies.

3.2 THRESHOLDS

As a corollary to Fort Ord reuse activity phasing which has emerged from the land use planning considerations of the FORA Working Group, the Administrative Committee and the EDAW/EMC Planning Team, there are other constraining factors which influence infrastructure phasing and capital improvement budgeting. These factors are properly seen as "thresholds" which must be anticipated and then crossed by means of engineering plans, regulatory approvals and/or financing capabilities. The primary threshold which must be anticipated in the reuse of Fort Ord is that of potable water supply. The reader of this report will find much discussion of the water supply situation in Section 4.1 - Water System of the FORIS Master Plan Report and in Section 3.5.6 which follows. By reason of an Army agreement with the Monterey County Water Resources Agency, a potable water supply of 6,600 acre feet per year is assured from well water source until a replacement supply is made available by the Monterey County Resources Agency.

This supply is obtained from the Salinas Ground Water Basin. In addition, 425 acre feet per year is currently drawn from the Seaside Ground Water Basin for golf course irrigation. When a reclaimed water distribution system is constructed to deliver treated wastewater to the Fort Ord golf courses for irrigation purposes, the 425 acre feet of well water could then be considered as an additional potable water source. The total of 7,000+ acre feet per year constitutes the upper limit of potable water supply on which reuse activities, including the residual Presidio of Monterey Annex, can depend.

Thus, the available potable water, while a significant quantity, is a limit which will constrain ultimate development until investment in and regulatory permission to import reclaimed water via a constructed delivery system is obtained and until approval of and investment in a new water source (now seen as desalination facilities) has been committed. On the other hand, due to salt water intrusion into the Salinas ground water basin, adjudication may result in reducing the available water supply from well sources thus restricting the extent of initial development accordingly.

The projection of water demand for the EDAW/EMC 2015 Reuse Plan can be found in Chapter PFIP 2, specifically on FORA 05-04 page PFIP 2-7. Interestingly, those water demand projects show that the 6,600 afy supply of potable water will serve the "drinking water" requirements of the 2015 plan with a 13% reserve if water conservation measures are implemented.

Other of the infrastructure systems do not have the same absolute constraint as is imposed by potable water supply. However, there are several other thresholds which reuse activity at Fort Ord will face and, with financial resources and response time, will pass over on the way to buildout of the Base Reuse Plan.

After water, the next universal constraint will be the ability to finance the capital cost and then to meet the annualized cost of operations for the whole array of infrastructure and public services required to support the Reuse Plan. The FORA 05-04 cost analysis in Chapter PFIP 2 provides a basis for exploring the balance between created land values - thus demand for services - and capital costs for improvements to meet that demand. FORA concern as to the annual cost of providing a full range of public services is evident from the scope of work for the in-progress Operations Plan. Financing plans for capital improvement projects and public service cost are the essential products of the Operations Plan and the annualized monetary thresholds of individual utility and transportation systems are reported in Section 3.4, Capital Improvement Projects (CIP) Budgets which follows.

Another type of threshold is evident in the planned expansion of the wastewater collection system. In this case, the threshold is essentially topographic. When reuse activities extend eastward of 8th Avenue, new wastewater collection systems are required. Development in the Airfield Area, East Garrison and in the mid-base area south of Inter-Garrison Road to Eucalyptus Road falls into this category. FORIS assigns wastewater flows west of the 8th Avenue line to the current system of gravity sewers, lift stations, force mains and pump stations which now serve Fort Ord's Main Garrison. Reuse activity through 2015 is expected to generate wastewater flows of 4.07 mgd at

buildout which is in excess of the 3.3 mgd treatment capacity that the Army now owns in the regional treatment plant. These flows are tributary to the Monterey Regional Water Pollution Control Agency (MRWPCA) regional interceptor sewer via the existing Fort Ord pump station. The current 3.3 mgd capacity of this sewerage system will therefore have to be expanded in all of its various sectors including treatment capacity purchase in the regional plant. However, 3.3 million gallons per day (mgd) of existing wastewater collection and treatment capacity offers the clear advantage of supporting the first major increment of planned reuse.

On the other side of the 8th Avenue topographic threshold, however, sewerage system planning is different and several options deserve attention. The minor wastewater disposal capacity available via the Fritzche Airfield outfall to the Salinas interceptor sewer (.020 mgd) and at the "condemned" East Garrison plant are totally inadequate to serve the planned reuse. When the topographic parameters of the reuse area east of 8th Avenue are used to define a wastewater collection system, it is found that all routes lead to the low point in the southeast quadrant of the Reservation Road/Imjin Road intersection. A new wastewater pumping station is required at that point and is scheduled for construction in 1996-97 by means of FORA'S Defense Conversion Action Grant.

3.3 OPERATIONAL CONDITIONS SUMMARY

The reuse of Fort Ord is substantially enhanced by the operating utilities and driveable roadway system which exist under Army ownership of the base. As discussed above, The Army's historic claim to well water pumpage rights - substantiated by buy-in to Monterey County Water Resources Agency Zone 2-2a - and to previously purchased wastewater treatment capacity in MRWPCA's regional plant are important basic assets for reuse. This capacity and the working infrastructure allows economic recovery activities to begin immediately. There is, however, the mixed blessing of inheriting both the strengths and weaknesses of the existing infrastructure.

FORIS originally focused on the usability of the existing systems and on the cost of upgrading those systems so that they become the heart of the expanded network of streets and utilities which is designed to serve the array of proposed land use in the 12/12/94 Initial Base Reuse Plan. Although there are important modifications to the Initial Base Reuse Plan to be found in the EDAW/EMC reuse plan, the geographic footprint of development has remained essentially unchanged. As the result, adaptation of the FORIS infrastructure concept plans to the EDAW/EMC land use configuration has been in the form of downsizing - where intensity of use has been reduced - or in advancing the points in time when capacity expansion is required. As a total comparison however, the reduced cost reflected in the 05-04 analysis (Chapter PFIP 2) is primarily due to the elimination of energy supply and reused water distribution system costs which are now assigned to other agencies.

As taken from the FORIS Report, operational conditions of the existing infrastructure are summarized as follows:

Roadways: The extensive base roadway system has been remarkably well preserved and the Army utilizes an established pavement management system to schedule repairs. Roadway sections, particularly in residential areas, do not meet municipal dimensions. Safety standards for visibility and vertical geometry are not current. One immediate concern is how to restrict travel on the road system. There are simply more roads than reuse will require and the associated policing, maintenance or fire prevention costs need to be avoided where possible.

Potable Water System: The existing water supply system was found to have both operational as well as conditional deficiencies. Approximately half of the existing storage reservoirs and pumping stations require significant repairs while roughly 25% of the existing water transmission pipelines are estimated to need replacement due to localized conditions. Of equal importance is the necessity to redrill existing wells to insure productive life and also to meet current public health standards. At the same time, water treatment facilities should be installed in proximity to the well heads so that delivery of potable supply can occur from any portion of the system rather than necessitating transfer of all water supply to the existing water treatment facility and then redistribution throughout the reuse area. Installation of individual water meters at approximately 4,000 locations will also be necessary as a basis for revenue collection and also as a means of achieving water conservation goals.

Wastewater Collection System: As the result of deferred maintenance, the existing sewerage system on Fort Ord requires repairs and standby power provision at all of the on-base pump stations and the estimated replacement of 20% of the trunk sewers or force mains. However, the flow capacities in the existing system are adequate for planned reuse and the Army's past policy of purchasing treatment capacity in the regional wastewater reclamation plant has already resulted in the abandonment of on-site sewage treatment facilities except for an antiquated but functioning primary plant at East Garrison scheduled for abandonment. In addition, the Army has contracted for a TV survey and repair of distressed sections for the entire gravity sewer system which is now in operation on Fort Ord. This program is scheduled for the 94/95 fiscal year.

Drainage: The four existing gravity flow pipe systems which convey storm water from the existing cantonment area to the ocean are performing well and are in good condition. However, the outfall structures which extend from the beach to discharge beyond the surf line are subject to both structural aging due to wave action and technical obsolescence under the best management practices guidelines which are part of storm water discharge regulations due in 1996. The Fort Ord drainage system is therefore obsolete in terms of discharge concept. The modifications required will be that of truncating the outfall pipelines just to the west of Highway 1 and allowing the storm water to flow through re-contoured wetlands toward the ocean - fronting dunes. This configuration basically reestablishes any wetland habitat which predates firing range construction by the Army and allows concentration and potential diversion of storm water flows for reuse.

It must be noted that the ongoing programs for infrastructure maintenance as well as the experienced personnel of the Army's Directorate of Housing and Engineering who were responsible for operations and maintenance of all on-base infrastructure have essentially disappeared. This loss of program, funding and people are dramatic casualties of the closure of Fort Ord. Currently minimal maintenance functions are carried out by the local Navy Public Works Center which primarily supports the Navy Post Graduate School in Monterey. However, this function is probably best described as a response to failures rather than as a preventive maintenance program.

Municipalities and the County of Monterey are exploring the terms under which these local agencies could take over infrastructure maintenance on Fort Ord. This is an important step to be encouraged as a cost-effective response to an on-going Army problem and as the best means of building the systems familiarity so important to efficient and sustained infrastructure operation.

3.4 CAPITAL IMPROVEMENT PROJECT BUDGET

The tables which follow display the time-phased funding levels for infrastructure upgrading and expansion. Each public service system requiring capital improvements has been identified in Section 1.7, Public Improvement Project Listing which was made available to all FORA Agencies on January 11, 1996. The CIP budgets which follow are segregated by system and reflect the scheduling sequence anticipated in the scope of work; namely:

- Each year for the first 5 years (1996-2000)
- Every two years for the next 6 years (2001-2006)
- Over the next 4 years (2007-2010)
- Over the next 5 years (2011-2015)

The capital costs assigned to each public improvement project are based upon concept plans at a scale of 1":1000'. Costs are preliminary and present the conceptual nature of infrastructure planning to date. Costs do not include demolition, except as noted, hazardous waste or munitions clean up, environmental mitigation, or right-of-way within Fort Ord, agency fees, financing costs or on-going operations and maintenance. The schedule is based on route information available as of November 1995. The EDAW/EMC team members assume no liability for changes in quantities or prices due to unforeseen or subsequent conditions or for changes directed by controlling agencies. The costs presented are those expected at mid-year 1995 and no future cost escalation is included. They include 15% Contingency and 20% for engineering, administration, surveying, soils investigations and construction management.

In normal municipal public works practice, capital improvement budgets are prepared on an annual basis to a five year horizon. These are "rolling" budgets for which a new fifth year capital cost projection is added yearly. As the reader will find, in this report, an annualized five year budget has been created followed by probable capital costs for two year periods over the next six

years, and then by consolidated budgets for subsequent four and five year periods. This variation from 1 to 5 year budget increments reflects the imprecise nature of 20 year projections.

PFIP 3. Operational Conditions and Capital Improvement Projects (CIP) Budget

3.1 BASIS FOR THIS CHAPTER

This chapter has been prepared as part of the Operation Plan Component of the Fort Ord Base Reuse Plan. The information presented here is based upon current base reuse planning efforts by the EDAW/EMC Team and draws from assumptions, strategies and findings as prepared by this Team. The foundation for the analysis contained in the Operation Plan is EDAW's November 2, 1995, land use/employment/residential forecasts, which were revised/updated on November 14, 1995 and on December 4, 1995.

As is apparent, no capital improvement costs are included for electrical, gas or communication systems. It is assumed that transfer of these facilities will take the form of negotiated sales between the Army and qualified private utilities. Therefore systems upgrade and expansion costs are expected to be included in the rate structure of those utilities.

The work related to the infrastructure systems draws from the original work completed by Reimer Associates in the Fort Ord Reuse Infrastructure Study (FORIS) Master Plan Report. In addition, the information developed by Reimer Associates for the Defense Conversion Action Grant Application has been taken into account in the selection of projects. The transportation project selection and allocation of costs was based upon JHK's rerun of the TAMC model and reflects the 2015 land use forecasts presented to FORA by EDAW/EMC.

Additional background and input for this report comes from conversations and interviews with Monterey County, the Cities of Seaside and Marina and other appropriate local and regional agencies.

3.2 THRESHOLDS

As a corollary to Fort Ord reuse activity phasing which has emerged from the land use planning considerations of the FORA Working Group, the Administrative Committee and the EDAW/EMC Planning Team, there are other constraining factors which influence infrastructure phasing and capital improvement budgeting. These factors are properly seen as "thresholds" which must be anticipated and then crossed by means of engineering plans, regulatory approvals and/or financing capabilities. The primary threshold which must be anticipated in the reuse of Fort Ord is that of potable water supply. The reader of this report will find much discussion of the water supply situation in Section 4.1 - Water System of the FORIS Master Plan Report and in Section 3.5.6 which follows. By reason of an Army agreement with the Monterey County Water Resources Agency, a potable water supply of 6,600 acre feet per year is assured from well water source until a replacement supply is made available by the Monterey County Resources Agency.

This supply is obtained from the Salinas Ground Water Basin. In addition, 425 acre feet per year is currently drawn from the Seaside Ground Water Basin for golf course irrigation. When a reclaimed water distribution system is constructed to deliver treated wastewater to the Fort Ord golf courses for irrigation purposes, the 425 acre feet of well water could then be considered as an additional potable water source. The total of 7,000+ acre feet per year constitutes the upper limit of potable water supply on which reuse activities, including the residual Presidio of Monterey Annex, can depend.

Thus, the available potable water, while a significant quantity, is a limit which will constrain ultimate development until investment in and regulatory permission to import reclaimed water via a constructed delivery system is obtained and until approval of and investment in a new water source (now seen as desalination facilities) has been committed. On the other hand, due to salt water intrusion into the Salinas ground water basin, adjudication may result in reducing the available water supply from well sources thus restricting the extent of initial development accordingly.

The projection of water demand for the EDAW/EMC 2015 Reuse Plan can be found in Chapter PFIP 2, specifically on FORA 05-04 page PFIP 2-7. Interestingly, those water demand projects show that the 6,600 afy supply of potable water will serve the "drinking water" requirements of the 2015 plan with a 13% reserve if water conservation measures are implemented.

Other of the infrastructure systems do not have the same absolute constraint as is imposed by potable water supply. However, there are several other thresholds which reuse activity at Fort Ord will face and, with financial resources and response time, will pass over on the way to buildout of the Base Reuse Plan.

After water, the next universal constraint will be the ability to finance the capital cost and then to meet the annualized cost of operations for the whole array of infrastructure and public services required to support the Reuse Plan. The FORA 05-04 cost analysis in Chapter PFIP 2 provides a basis for exploring the balance between created land values - thus demand for services - and capital costs for improvements to meet that demand. FORA concern as to the annual cost of providing a full range of public services is evident from the scope of work for the in-progress Operations Plan. Financing plans for capital improvement projects and public service cost are the essential products of the Operations Plan and the annualized monetary thresholds of individual utility and transportation systems are reported in Section 3.4, Capital Improvement Projects (CIP) Budgets which follows.

Another type of threshold is evident in the planned expansion of the wastewater collection system. In this case, the threshold is essentially topographic. When reuse activities extend eastward of 8th Avenue, new wastewater collection systems are required. Development in the Airfield Area, East Garrison and in the mid-base area south of Inter-Garrison Road to Eucalyptus Road falls into this category. FORIS assigns wastewater flows west of the 8th Avenue line to the current system of gravity sewers, lift stations, force mains and pump stations which now serve Fort Ord's Main Garrison. Reuse activity through 2015 is expected to generate wastewater flows of 4.07 mgd at

buildout which is in excess of the 3.3 mgd treatment capacity that the Army now owns in the regional treatment plant. These flows are tributary to the Monterey Regional Water Pollution Control Agency (MRWPCA) regional interceptor sewer via the existing Fort Ord pump station. The current 3.3 mgd capacity of this sewerage system will therefore have to be expanded in all of its various sectors including treatment capacity purchase in the regional plant. However, 3.3 million gallons per day (mgd) of existing wastewater collection and treatment capacity offers the clear advantage of supporting the first major increment of planned reuse.

On the other side of the 8th Avenue topographic threshold, however, sewerage system planning is different and several options deserve attention. The minor wastewater disposal capacity available via the Fritzche Airfield outfall to the Salinas interceptor sewer (.020 mgd) and at the "condemned" East Garrison plant are totally inadequate to serve the planned reuse. When the topographic parameters of the reuse area east of 8th Avenue are used to define a wastewater collection system, it is found that all routes lead to the low point in the southeast quadrant of the Reservation Road/Imjin Road intersection. A new wastewater pumping station is required at that point and is scheduled for construction in 1996-97 by means of FORA'S Defense Conversion Action Grant.

3.3 OPERATIONAL CONDITIONS SUMMARY

The reuse of Fort Ord is substantially enhanced by the operating utilities and driveable roadway system which exist under Army ownership of the base. As discussed above, The Army's historic claim to well water pumpage rights - substantiated by buy-in to Monterey County Water Resources Agency Zone 2-2a - and to previously purchased wastewater treatment capacity in MRWPCA's regional plant are important basic assets for reuse. This capacity and the working infrastructure allows economic recovery activities to begin immediately. There is, however, the mixed blessing of inheriting both the strengths and weaknesses of the existing infrastructure.

FORIS originally focused on the usability of the existing systems and on the cost of upgrading those systems so that they become the heart of the expanded network of streets and utilities which is designed to serve the array of proposed land use in the 12/12/94 Initial Base Reuse Plan. Although there are important modifications to the Initial Base Reuse Plan to be found in the EDAW/EMC reuse plan, the geographic footprint of development has remained essentially unchanged. As the result, adaptation of the FORIS infrastructure concept plans to the EDAW/EMC land use configuration has been in the form of downsizing - where intensity of use has been reduced - or in advancing the points in time when capacity expansion is required. As a total comparison however, the reduced cost reflected in the 05-04 analysis (Chapter PFIP 2) is primarily due to the elimination of energy supply and reused water distribution system costs which are now assigned to other agencies.

As taken from the FORIS Report, operational conditions of the existing infrastructure are summarized as follows:

Roadways: The extensive base roadway system has been remarkably well preserved and the Army utilizes an established pavement management system to schedule repairs. Roadway sections, particularly in residential areas, do not meet municipal dimensions. Safety standards for visibility and vertical geometry are not current. One immediate concern is how to restrict travel on the road system. There are simply more roads than reuse will require and the associated policing, maintenance or fire prevention costs need to be avoided where possible.

Potable Water System: The existing water supply system was found to have both operational as well as conditional deficiencies. Approximately half of the existing storage reservoirs and pumping stations require significant repairs while roughly 25% of the existing water transmission pipelines are estimated to need replacement due to localized conditions. Of equal importance is the necessity to redrill existing wells to insure productive life and also to meet current public health standards. At the same time, water treatment facilities should be installed in proximity to the well heads so that delivery of potable supply can occur from any portion of the system rather than necessitating transfer of all water supply to the existing water treatment facility and then redistribution throughout the reuse area. Installation of individual water meters at approximately 4,000 locations will also be necessary as a basis for revenue collection and also as a means of achieving water conservation goals.

Wastewater Collection System: As the result of deferred maintenance, the existing sewerage system on Fort Ord requires repairs and standby power provision at all of the on-base pump stations and the estimated replacement of 20% of the trunk sewers or force mains. However, the flow capacities in the existing system are adequate for planned reuse and the Army's past policy of purchasing treatment capacity in the regional wastewater reclamation plant has already resulted in the abandonment of on-site sewage treatment facilities except for an antiquated but functioning primary plant at East Garrison scheduled for abandonment. In addition, the Army has contracted for a TV survey and repair of distressed sections for the entire gravity sewer system which is now in operation on Fort Ord. This program is scheduled for the 94/95 fiscal year.

Drainage: The four existing gravity flow pipe systems which convey storm water from the existing cantonment area to the ocean are performing well and are in good condition. However, the outfall structures which extend from the beach to discharge beyond the surf line are subject to both structural aging due to wave action and technical obsolescence under the best management practices guidelines which are part of storm water discharge regulations due in 1996. The Fort Ord drainage system is therefore obsolete in terms of discharge concept. The modifications required will be that of truncating the outfall pipelines just to the west of Highway 1 and allowing the storm water to flow through re-contoured wetlands toward the ocean - fronting dunes. This configuration basically reestablishes any wetland habitat which predates firing range construction by the Army and allows concentration and potential diversion of storm water flows for reuse.

It must be noted that the ongoing programs for infrastructure maintenance as well as the experienced personnel of the Army's Directorate of Housing and Engineering who were responsible for operations and maintenance of all on-base infrastructure have essentially disappeared. This loss of program, funding and people are dramatic casualties of the closure of Fort Ord. Currently minimal maintenance functions are carried out by the local Navy Public Works Center which primarily supports the Navy Post Graduate School in Monterey. However, this function is probably best described as a response to failures rather than as a preventive maintenance program.

Municipalities and the County of Monterey are exploring the terms under which these local agencies could take over infrastructure maintenance on Fort Ord. This is an important step to be encouraged as a cost-effective response to an on-going Army problem and as the best means of building the systems familiarity so important to efficient and sustained infrastructure operation.

3.4 CAPITAL IMPROVEMENT PROJECT BUDGET

The tables which follow display the time-phased funding levels for infrastructure upgrading and expansion. Each public service system requiring capital improvements has been identified in Section 1.7, Public Improvement Project Listing which was made available to all FORA Agencies on January 11, 1996. The CIP budgets which follow are segregated by system and reflect the scheduling sequence anticipated in the scope of work; namely:

- Each year for the first 5 years (1996-2000)
- Every two years for the next 6 years (2001-2006)
- Over the next 4 years (2007-2010)
- Over the next 5 years (2011-2015)

The capital costs assigned to each public improvement project are based upon concept plans at a scale of 1":1000'. Costs are preliminary and present the conceptual nature of infrastructure planning to date. Costs do not include demolition, except as noted, hazardous waste or munitions clean up, environmental mitigation, or right-of-way within Fort Ord, agency fees, financing costs or on-going operations and maintenance. The schedule is based on route information available as of November 1995. The EDAW/EMC team members assume no liability for changes in quantities or prices due to unforeseen or subsequent conditions or for changes directed by controlling agencies. The costs presented are those expected at mid-year 1995 and no future cost escalation is included. They include 15% Contingency and 20% for engineering, administration, surveying, soils investigations and construction management.

In normal municipal public works practice, capital improvement budgets are prepared on an annual basis to a five year horizon. These are "rolling" budgets for which a new fifth year capital cost projection is added yearly. As the reader will find, in this report, an annualized five year budget has been created followed by probable capital costs for two year periods over the next six

years, and then by consolidated budgets for subsequent four and five year periods. This variation from 1 to 5 year budget increments reflects the imprecise nature of 20 year projections.

Table PFIP 3-1

Capital Improvement Projects (CIP) Budget - Transportation

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,202.64

	TRANSPORTATION PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2001	2006	2007	2010	2011	2015
T-1	HWY 86	TOTAL COST	96		01		07		11	
	CONSTRUCT 4-LANE	$177,000,000	97		02					
	BYPASS FREEWAY	FORT ORD COST	98		03					$18,050,000
		$18,050,000	99		04		15			
			00		05				15	
					06					
T-2r	HWY I56	TOTAL COST	96		01		07		11	
	WIDEN TO 4-LANE	$50,000,000	97		02			$34,000,000		
	EXPRESSWAY	FORT ORD COST	98		03					
		$34,000,000	99		04		16			
			00		05				15	
					06					
T-3	BUS ACQUISITION	TOTAL COST	96		01		07		11	
	PURCHASE OF	$4,950,000	97	$330,000	02	$660,000				
	15 BUSES	FORT ORD COST	98	$330,000	03					$1,650,000
		$4,950,000	99	$330,000	04	$660,000	16			
			00	$660,000	05				15	
YEARS.					06	$330,000				
STUDY.	DAVIS RD	TOTAL COST	96		01		07		11	
IP 3-10)	4-LANE BRIDGE	$5,000,000	97		02			$2,030,000		
		FORT ORD COST	98		03					
		$2,030,000	99		04		16			
			00		05				15	
					06					
	BLANCO RD		96		01		07		11	
T-5.1	RESERVATION-SALINAS	TOTAL COST	97	$170,000	02					
	WIDEN FROM 2 TO	$1,440,000	98	$570,000	03					
	4-LANES	FORT ORD COST	99		04		16			
		$740,000	00		05				15	
					0					

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996–2000	2000	2001–2006	2006	2007–2010	2010	2011–2015	2015
T-5.2	COOPER-ALISAL RDS WIDEN FROM 2 TO 4-LANES ROAD, BRIDGE, ROW	TOTAL COST $10,930,000 FORT ORD COST $5,600,000	96 97 98 99 00	$1,200,000	01 02 03 04 05 06	$4,400,000	07 10		11 15	
T-6	RESERVATION RD WIDEN FROM 4 TO 6-LANES WITH TURNING LANES	TOTAL COST $4,010,000 FORT ORD COST $2,450,000	96 97 98 99 00		01 02 03 04 05 06	$480,000 $1,970,000	07 10		11 15	
T-7	RESERVATION RD CONNECTION CONSTRUCT NEW 4-LANE ARTERIAL	TOTAL COST $3,400,000 FORT ORD COST $2,800,000	96 97 98 99 00	$400,000 $2,400,000	01 02 03 04 05 06		07 10		11 15	
T-8	RESERVATION RD CONSTRUCT NEW 4-LANE ARTERIAL TO BARLOY CANYON RD	TOTAL COST $3,770,000 FORT ORD COST $3,100,000	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	$3,100,000
T-9	DEL MONTE BLVD IN MONTEREY WIDEN TO 5-LANES INCLUDING ROW ACQUISITION	TOTAL COST $10,000,000 FORT ORD COST $2,200,000	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	$2,200,000
T-10	DEL MONTE BLVD IN MARINA WIDEN TO 6-LANE AND ROW	TOTAL COST $5,570,000 FORT ORD COST $4,480,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$4,480,000	11 15	

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1995	2000		2006		2010	2011	2015
T-11	HWY 218	TOTAL COST	96						11	
	WIDEN TO 4-LANES	$3,590,000	97			$680,000				
	AND ROW	FORT ORD COST	98							
		$1,640,000	99		04	$960,000				
			00		05				15	
					06					
T-12	CALIFORNIA AVE	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$600,000	97	($600,000)	02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					
	(DCAG)	(GRANT)	99		04		10			
			00		05				15	
					06					
T-13	CALIFORNIA AVE	TOTAL COST	96		01		07		11	
	UPGRADE & EXTEND	$1,860,000	97	$280,000	02			$180,000		
	AS 2-LANE ARTERIAL	FORT ORD COST	98	$170,000	03					
	AND ROW	$700,000	99	$70,000	04		10			
			00		05				15	
					06					
T-14	CRESCENT COURT	TOTAL COST	96		01		07		11	
	EXTENSION TO	$720,000	97	$90,000	02					
	ABRAMS RD	FORT ORD COST	98	$630,000	03					
		$720,000	99		04		10			
			00		05				15	
					06					
T-15	VARIOUS LOCATIONS	TOTAL COST	96	($1,100,000)	01		07		11	
	SAFETY AND REHAB	$1,100,000	97		02					
	AS REQUIRED BY		98		03					
	GATE OPENINGS	FORT ORD COST	99		04		10			
	(DCAG)	(GRANT)	00		05				15	
					06					

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996 – 2000	2001 – 2006	2007 – 2010	2011 – 2015
	VARIOUS LOCATIONS	TOTAL COST	96	01	07	11
	STREET IMPROVEMENTS	$5,600,000	97	02		
T-16.1	RESERVATION RD	FORT ORD COST	98	03		
T-16.2	MONTEREY RD	$5,600,000	99	04	10	
T-16.3	ABRAMS RD		00	05		15
T-16.4	INTER-GARRISON RD			06		
T-16.5	PARKER FLATS RD		PRIORITIES FOR THESE STREET IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM PROJECT *T-15.*			
T-16.6	COE & EUCALYPTUS RDS					
T-16.7	NORTH SOUTH RD					
T-16.8	1ST AVE					
T-16.9	10TH ST					
T-16.10	3RD AVE					
T-16.11	NORMANDY RD					
T-16.12	8TH AVE					
T-16.13	COL. DURHAM RD					
	VARIOUS LOCATIONS	TOTAL COST				
	REHAB OF ARTERIALS	$4,400,000				
		FORT ORD COST				
		$3,080,000				
T-17.1	IMJIN RD	$550,000	96	01	07	11
T-17.2	NORTH SOUTH RD	$600,000	97 $550,000	02 $600,000		
T-17.3	2ND AVE	$430,000	98	03		
T-17.4	INTER-GARRISON	$600,000	99 $430,000	04 $600,000	10	
T-17.5	EUCALYPTUS	$900,000	00 $900,000	05		15
				06		
	VARIOUS LOCATIONS					
	GATEWAY IMPROVEMENTS AT ENTRY POINTS					
T-18.1	IMJIN RD	TOTAL COST	96	01	07	11
		$2,300,000	97	02		
		FORT ORD COST	98 $460,000	03		
		$460,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996–2000	2001–2006	2007–2010	2011–2015
T-18.2	NORTH SOUTH RD	TOTAL COST	96	01	07	11
		$3,200,000	97	02		
		FORT ORD COST	98	03		
		$640,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.3	11TH ST	TOTAL COST	96	01	07	11
		$1,000,000	97	02		
		FORT ORD COST	98	03		
		$200,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.4	NORTH SOUTH RD	TOTAL COST	96	01	07	11
		$1,200,000	97	02		
		FORT ORD COST	98	03		
		$240,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.5	INTER-GARRISON RD	TOTAL COST	96	01	07	11
		$1,500,000	97	02		
		FORT ORD COST	98	03		
		$300,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-19	12TH ST	TOTAL COST	96	01	07	11
	CONSTRUCT NEW	$4,150,000	97	02		
	4-LANE ARTERIAL	FORT ORD COST	98	03		
		$2,080,000	99	04	10	
			00	05		15
				06		
T-20	CALIFORNIA AVE	TOTAL COST	96	01	07	11
	CONSTRUCT NEW	$1,270,000	97	02		
	2-LANE ARTERIAL	FORT ORD COST	98	03		
		$480,000	99	04	10	
			00	05		15
				06		

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
T-21	8TH ST	TOTAL COST	96		01		07		11	
	UPGRADE NEW	$840,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98	$710,000	03					
	WITH TURNING	$710,000	99		04		10			
	POCKETS AND		00		05				15	
	LANDSCAPING				06					
T-22	INTERMODAL	TOTAL COST	96		01		07		11	
	TRANSIT CENTER &	$3,600,000	97		02			$900,000		
	PARK & RIDE FACILITIES	FORT ORD COST	98		03					$1,100,000
		$3,600,000	99		04		10			
			00	$1,600,000	05				15	
					06					
T-23	GIGLING RD	TOTAL COST	96		01		07		11	
	REBUILD AS 4-LANE	$1,760,000	97		02					
	ARTERIAL	FORT ORD COST	98	$210,000	03					
		$1,250,000	99	$1,040,000	04		10			
			00		05				15	
					06					
T-24	SALINAS ST	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$2,410,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					
		$2,410,000	99	$290,000	04		10			
			00	$2,120,000	05				15	
					06					
T-25	*REMOVED*									
T-26	IMJIN/12TH ST	TOTAL COST	96		01		07		11	
	WIDEN TO 4-LANE	$4,910,000	97		02	$2,460,000				
	ARTERIAL	FORT ORD COST	98		03					
		$2,460,000	99		04		10			
			00		05				15	
					06					

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996	2000	2001	2006	2007	2010	2011	2015
T-27	2ND AVE CONSTRUCT NEW 4-LANE ARTERIAL AND DEMOLITION	TOTAL COST $3,630,000 FORT ORD COST $2,790,000	96 97 98 99 00		01 02 03 04 05 06	$2,790,000	07 10		11 15	
T-28	COE AVE UPGRADE TO 2-LANE ARTERIAL	TOTAL COST NO IMPROVEMENTS PROPOSED FORT ORD COST	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	
T-29	2ND AVE WIDEN TO 4-LANE ARTERIAL	TOTAL COST $3,600,000 FORT ORD COST $2,600,000	96 97 98 99 00		01 02 03 04 05 06	$2,600,000	07 10		11 15	
T-30	CALIFORNIA AVE CONSTRUCT NEW 2-LANE ARTERIAL	TOTAL COST $1,510,000 FORT ORD COST $570,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$570,000	11 15	
T-31	8TH ST CONSTRUCT NEW 2-LANE ARTERIAL	TOTAL COST $2,000,000 FORT ORD COST $1,700,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$1,700,000	11 15	

TRANSPORTATION PROJECTS											
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS								
PRJ-#	(FUNDING SOURCE)		1997	2000		2006		2010	2011	2015	
T-32	8TH ST	TOTAL COST	96		01		07		11		
	UPGRADE TO 2-LANE	$990,000	97		02						
	ARTERIAL	FORT ORD COST	98		03					$840,000	
		$840,000	99		04		10				
			00		05				15		
					06						
T-33	NORTH SOUTH RD	TOTAL COST	96		01		07		11		
	WIDEN TO 4-LANE	$2,640,000	97		02			$1,430,000			
	ARTERIAL	FORT ORD COST	98		03						
		$1,430,000	99		04		10				
			00		05				15		
					06						
T-34	NORTH SOUTH RD	TOTAL COST	96		01		07		11		
	UPGRADE TO 2-LANE	$3,520,000	97		02						
	ARTERIAL	FORT ORD COST	98		03					$1,900,000	
		$1,900,000	99		04		10				
			00		05				15		
					06						
T-35	GIGLING RD	TOTAL COST	96		01		07		11		
	CONSTRUCT NEW	$2,770,000	97		02			$1,970,000			
	4-LANE ARTERIAL	FORT ORD COST	98		03						
		$1,970,000	99		04		10				
			00		05				15		
					06						
T-36	EASTSIDE RD	TOTAL COST	96		01		07		11		
	CONSTRUCT NEW	$6,030,000	97		02			$4,370,000			
	2-LANE ARTERIAL	FORT ORD COST	98		03						
		$4,370,000	99		04		10				
			00		05				15		
					06						

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
T-37	EUCALYPTUS RD	TOTAL COST	96		01		07		11	
	UPGRADE TO 2-LANE	$2,880,000	97		02					
	ARTERIAL	FORT ORD COST	98		03					$2,880,000
		$2,880,000	99		04		10			
			00		05				15	
					06					
T-38	INTER-GARRISON	TOTAL COST	96		01		07		11	
	UPGRADE TO 2-LANE	$4,480,000	97		02					
	ARTERIAL	FORT ORD COST	98		03					$3,810,000
		$3,810,000	99		04		10			
			00		05				15	
					06					
T-39	ABRAMS RD	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$600,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					$600,000
		$600,000	99		04		10			
			00		05				15	
					06					
T-40	BLANCO ROAD EXTENSION	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$4,080,000	97		02					
	4-LANE ARTERIAL	FORT ORD COST	98		03					
		$4,080,000	99		04	4,080,000	10			
			00		05				15	
					06					
	ALL TRANSPORTATION	TOTAL COST	96	$0	01		07		11	
	PROJECTS	$360,810,000	97	$1,420,000	02	$8,800,000		$51,630,000		
		FORT ORD COST	98	$7,090,000	03					$36,130,000
		$136,510,000	99	$4,890,000	04	$9,570,000	10			
			00	$6,480,000	05				15	
					06	$4,900,000				

Table PFIP 3-2

Capital Improvement Projects (CIP) Budget - Water System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	WATER SYSTEM PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1995	2000	2001	2006	2011	2010	2011	2015
W-1	WATER SUPPLY WELLS	TOTAL COST	96	($1,380,000)	01		07		11	
	REDRILL WELLS 29, 30, 31	$2,760,000	97	($1,380,000)	02					
	& 32 TO DEEPER AQUIFER	FORT ORD COST	98		03					
	(EDA GRANT)	(GRANT)	99		04		10			
			00		05				15	
					06					
W-2	DISINFECTION STATION	TOTAL COST	96	($160,000)	01		07		11	
	INSTALL NEW EQUIPMENT	$160,000	97		02					
	IN EXISTING PUMP STATION	FORT ORD COST	98		03					
	(EDA GRANT)	(GRANT)	99		04		10			
			00		05				15	
					06					
W-3	BOOSTER PUMPS AT	TOTAL COST	96		01		07		11	
	MAIN STATION	$3,830,000	97	$460,000	02					
	REPLACE MAIN PUMPS &	FORT ORD COST	98	$1,205,000	03					
	ELECTRICAL/STANDBY	$2,870,000	99	$1,205,000	04		10			
	POWER SYSTEMS - ZONES		00		05				15	
YEARS.	B & C				06					
STUDY.	E ZONE STORAGE TANK	TOTAL COST	96		01		07		11	
IP 3-10)	CONSTRUCT NEW 1.3 MG	$1,830,000	97		02					
	STORAGE TANK WITH	FORT ORD COST	98		03					
	CONNECTING PIPELINES	$1,370,000	99	$220,000	04		10			
			00	$1,150,000	05				15	
					06					

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	1996	2000	2001	2006	2007	2010	2011	2015
	WATER SYSTEM PROJECTS									
W-5	BOOSTER PUMP STATION	TOTAL COST	96		01		07		11	
	UPGRADE OF EXISTING	$280,000	97		02	$280,000				
	ZONE B TO ZONE C	FORT ORD COST	98		03					
	BOOSTER PUMP	$280,000	99		04		10			
	STATION		00		05				15	
					06					
W-6	STORAGE RESERVOIRS	TOTAL COST	96		01		07		11	
	REHAB EXISTING TANKS	$750,000	97	$22,000	02					
		FORT ORD COST	98	$183,000	03					
		$560,000	99	$183,000	04		10			
			00	$172,000	05				15	
					06					
W-7	DISTRIBUTION SYSTEMS	TOTAL COST	96		01		07		11	
	REHAB & UPGRADE	$8,630,000	97		02	$640,000		$1,280,000		
	EXISTING DISTRIBUTION	FORT ORD COST	98	$600,000	03					$1,670,000
	SYSTEMS OVER 75% OF	$6,470,000	99	$500,000	04	$640,000	10			
	SERVICE AREA		00	$500,000	05				15	
					06	$640,000				
W-8	METERING	TOTAL COST	96	($190,000)	01		07		11	
	METER INSTALLATION AT	$1,200,000	97	$50,000	02					
	EXISTING BUILDINGS	FORT ORD COST	98	$100,000	03					
	SCHEDULED TO REMAIN	$720,000	99	$200,000	04		10			
		+	00	$370,000	05				15	
	(FUNDING SOURCE)	(GRANT)			06					
	STORAGE RESERVOIRS	TOTAL COST	96		01		07		11	
	AND PUMPING STATIONS	$2,600,000	97		02					
W-9.1	ZONE B - NEW 3.0 MG	FORT ORD COST	98		03					$2,600,000
	STORAGE TANK AND	$2,600,000	99		04		10			
	BOOSTER STATION ON		00		05				15	
	INTER-GARRISON RD				06					

WATER SYSTEM PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
W-9.2	ZONE D - NEW BOOSTER PUMP STATION	TOTAL COST $690,000 FORT ORD COST $690,000	96		01		07		11	
			97		02			$690,000		
			98		03					
			99		04		10			
			00		05				15	
					06					
W-9.3	ZONE A - NEW 3.2 MG STORAGE TANK AND DISTRIBUTION REINFORCING LOOP IN MARINA VILLAGE AREA	TOTAL COST $2,130,000 FORT ORD COST $2,130,000	96		01		07		11	
			97		02					
			98		03					$2,130,000
			99		04		10			
			00		05				15	
					06					
W-10	DISTRIBUTION SYSTEMS NEW DISTRIBUTION FACS. TO SERVE NEW OR INTENSIFIED LAND USES IS THE AIRPORT, MBEST AND SW AREAS AS NEEDED	TOTAL COST $11,740,000 FORT ORD COST $11,740,000	96		01		07		11	
			97		02	$1,560,000		$3,120,000		
			98		03					$3,750,000
			99		04	$1,560,000	10			
			00	$190,000	05				15	
					06	$1,560,000				
W-11	ADDITIONAL WATER SUPPLY DESALINATION FACILITY TO MEET 1/3 OF THE POST 2015 WATER REQUIREMENTS	TOTAL COST $8,770,000 FORT ORD COST $8,770,000	96		01		07		11	
			97		02					
			98		03					$8,770,000
			99		04		10			
			00		05				15	
					06					
	ALL WATER SYSTEM PROJECTS	TOTAL COST $45,370,000 FORT ORD COST $38,200,000	96	$0	01		07		11	
			97	$532,000	02	$2,480,000		$5,090,000		
			98	$2,088,000	03					$18,920,000
			99	$2,308,000	04	$2,200,000	10			
			00	$2,382,000	05				15	
					06	$2,200,000				

Table PFIP 3-3

Capital Improvement Projects (CIP) Budget - Wastewater System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	WASTEWATER SYSTEM PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2001	2006	2007	2010	2011	2015
WW-1	UPGRADE EXISTING	TOTAL COST	96	($1,330,000)	01		07		11	
	SEWAGE PUMP AND LIFT	$1,330,000	97		02					
	STATIONS AND NEW		98		03					
	BOOKER STREET PUMP		99		04		10			
	STATION BYPASS SEWER	FORT ORD COST	00		05				15	
	(DCAG 2ND ROUND)	(GRANT)			06					
WW-2	TRUNK SEWERS AND	TOTAL COST	96		01		07		11	
	FORCE MAINS	$1,800,000	97	$30,000	02	$170,000		$480,000		
	REPLACE OBSOLETE	FORT ORD COST	98	$40,000	03					$600,000
	SECTIONS	$1,800,000	99	$50,000	04	$175,000	10			
			00	$80,000	05				15	
					06	$175,000				
WW-3	ORD VILLAGE PUMPING	TOTAL COST	96	($730,000)	01		07		11	
	STATION	$730,000	97		02					
	ENLARGE AND UPGRADE		98		03					
	EXISTING STATION	FORT ORD COST	99		04		10			
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15	
YEARS.					06					
STUDY.	GIGLING PUMP STATION	TOTAL COST	96	($1,280,000)	01		07		11	
IP 3-10)	BYPASS LINE	$1,280,000	97		02					
	NEW GRAVITY SEWER TO		98		03					
	ORD VILLAGE STATION	FORT ORD COST	99		04		10			
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15	
					06					

WASTEWATER SYSTEM PROJECTS											
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS								
			1996		2001		2007		2011		
PRJ-#	(FUNDING SOURCE)			2000		2006		2010		2015	
WW-5	INTERCEPTOR SEWER	TOTAL COST	96		01		07		11		
	NEW GRAVITY	$720,000	97		02	$720,000					
	INTERCEPTOR TO	FORT ORD COST	98		03						
	CONNECT AND CONVEY	$720,000	99		04		10				
	FLOWS		00		05				15		
					06						
WW-6	RESERVATION RD PUMP	TOTAL COST	96	($180,000)	01		07		11		
	STATION AND COLLECTION	$1,460,000	97	($1,280,000)	02						
	SYSTEM		98		03						
	NEW STATION AND MAINS	FORT ORD COST	99		04		10				
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15		
					06						
WW7	EAST GARRISON PUMP	TOTAL COST	96		01		07		11		
	STATION AND OUTFALL	$410,000	97	$50,000	02						
	SYSTEM	FORT ORD COST	98	$360,000	03						
	PUMP STATION, FORCE	$410,000	99		04		10				
	MAIN AND GRAVITY		00		05				15		
	INTECEPTOR				06						
WW-8	WASTEWATER	TOTAL COST	96		01		07		11		
	TREATMENT CAPACITY	$7,700,000	97		02						
	BUY-IN PAYMENT TO	FORT ORD COST	98		03					$7,700,000	
	MRWPCA	$7,700,000	99		04		10				
			00		05				15		
					06						
	ALL WASTEWATER	TOTAL COST	96	$0	01		07		11		
	SYSTEM PROJECTS	$15,430,000	97	$80,000	02	$890,000		$480,000			
		FORT ORD COST	98	$400,000	03					$8,300,000	
		$10,630,000	99	$50,000	04	$175,000	10				
			00	$80,000	05				15		
					06	$175,000					

Table PFIP 3-4

Capital Improvement Projects (CIP) Budget - Habitat Management

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	HABITAT MANAGEMENT PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)			2000		2006		2010		2015
HM-1	POLYGON 1A MANAGEMENT PLAN	TOTAL COST $47 FORT ORD COST $47		$47						
HM-2	POLYGON 1B GATES, MANAGEMENT PLAN AND REVEGETATION	TOTAL COST $10,718 FORT ORD COST $10,718		$207 $3,312 $7,199						$285,000
HM-3	POLYGON 1A MANAGEMENT PLAN	TOTAL COST $104 FORT ORD COST $104		$104				$1,410,000		
YEARS.										
STUDY.	POLYGON 2A	TOTAL COST								
IP 3-10)	GATES, FENCING AND MANAGEMENT PLAN	$102,276 FORT ORD COST $102,276		$156 $102,120						

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996	2000	2001	2006	2007	2010	2011	2015
HM-5	POLYGON 11A	TOTAL COST	96		01		07		11	
	POST & CABLE FENCE,	$277,249	97	$587	02					
	REVEGETATION PLAN,	FORT ORD COST	98	$117,010	03					
	MANAGEMENT PLAN,	$277,249	99	$159,652	04		10			
	FIRE PLAN, LOCKS,		00		05				15	
	MATERIALS AND SIGNS				06					
HM-6	POLYGON 11B	TOTAL COST	96		01		07		11	
	ROAD RESTORATION,	$10,615	97		02					
	MANAGEMENT PLAN AND	FORT ORD COST	98	$1,380	03					
	FIRE PLAN	$10,615	99	$9,199	04		10			
			00		05				15	
					06					
HM-7	POLYGON 17B	TOTAL COST	96		01		07		11	
	POST AND CABLE FENCE,	$217,615	97	$828	02					
	GATES AND LOCKS,	FORT ORD COST	98	$210,105	03					
	REVEGETATION PLAN,	$217,615	99	$3,301	04		10			
	MANAGEMENT PLAN,		00	$3,381	05				15	
	FIRE PLAN, SIGNS				06					
HM-8	POLYGON 19A	TOTAL COST	96		01		07		11	
	REVEGETATION PLAN,	$9,764	97		02					
	MANAGEMENT PLAN,	FORT ORD COST	98		03					
	FIRE PLAN, REVEGETATION,	$9,764	99	$1,035	04		10			
	AND ROAD RESTORATION		00	$8,729	05				15	
					06					
HM-9	POLYGON 20C	TOTAL COST	96		01		07		11	
	MANAGEMENT PLAN	$104	97	$104	02					
		FORT ORD COST	98		03					
		$104	99		04		10			
			00		05				15	
					06					

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000		2006		2010	2011	2015
HM-10	POLYGON 21A	TOTAL COST	96						11	
	REVEGETATION PLAN,	$4,969	97	$311						
	MANAGEMENT PLAN,	FORT ORD COST	98	$4,658	03					
	AND ROAD RESTORATION	$4,969	99		04		10			
			00		05				15	
					06					
HM-11	POLYGON 21B	TOTAL COST	96		01		07		11	
	ROAD RESTORATION	$7,855	97		02					
	MANAGEMENT PLAN	FORT ORD COST	98		03					
		$7,855	99	$414	04		10			
			00	$7,441	05				15	
					06					
HM-12	POLYGON 23	TOTAL COST	96		01		07		11	
	MANAGEMENT PLAN	$104	97	$104	02					
		FORT ORD COST	98		03					
		$104	99		04		10			
			00		05				15	
					06					
HM-13	POLYGON 30A	TOTAL COST	96		01		07		11	
	CHAIN LINK FENCE,	$24,774	97	$207	02					
	MANAGEMENT PLAN AND	FORT ORD COST	98	$24,567	03					
	SIGNS	$24,774	99		04		10			
			00		05				15	
					06					
HM-14	POLYGON 30B	TOTAL COST	96		01		07		11	
	SIGNS	$83	97		02					
		FORT ORD COST	98	$83	03					
		$83	99		04		10			
			00		05				15	
					06					

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
HM-15	POLYGON 30C	TOTAL COST	96		01		07		11	
	SIGNS AND	$1,429	97	$104	02					
	MANAGEMENT PLAN	FORT ORD COST	98	$1,325	03					
		$1,429	99		04		10			
			00		05				15	
					06					
	ALL HABITAT	TOTAL COST	96	$0	01		07		11	
	MANAGEMENT PROJECTS	$668,000	97	$2,800	02					
	($s ROUNDED)	FORT ORD COST	98	$464,600	03					
		$668,000	99	$180,800	04		10			
			00	$19,600	05				15	
					06					

Table PFIP 3-5

Capital Improvement Projects (CIP) Budget - Drainage System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	DRAINAGE PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2005	2006	2010	2010	2011	2015
D-1	STORM WATER OUTFALLS	TOTAL COST	96		01				11	
	B & C & D	$2,210,000	97		02					
	PROVIDE STILLING BASINS	FORT ORD COST	98		03					
	SPREADING BASIN.	$2,210,000	99	$270,000	04					
	REMOVAL OF OUTFALL		00	$1,940,000	05				15	
	PIPES				06					
	ALL DRAINAGE	TOTAL COST	96	$0	01				11	
	PROJECTS	$2,210,000	97	$0	02					
		FORT ORD COST	98	$0	03					
		$2,210,000	99	$270,000	04					
			00	$1,940,000	05				15	
					06					

NOTE: THE STAGING ALLOCATION DEPENDS UPON NPDES PROGRAM ENFORCEMENT SCHEDULES

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFI PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION S

(see page PFIP 3-10)

Table PFIP 3-6

Capital Improvement Projects (CIP) Budget - Public Services

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

PUBLIC SERVICES PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS						
PRJ-#	(FUNDING SOURCE)			2000		2006		2010	2015
PS-1	FIRE STATION	TOTAL COST							
		$1,110,000							
		FORT ORD COST							
		$1,110,000				$1,110,000			
	ALL PUBLIC SERVICES PROJECTS	TOTAL COST							
		$1,110,000							
		FORT ORD COST							
		$1,110,000				$1,110,000			

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFI PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION S (see page PFIP 3-10)

Table PFIP 3-7

Capital Improvement Projects (CIP) Budget - Summary

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES											
TOTAL PROJECT $S BY SYSTEM	BUDGET ALLOCATIONS BY YEAR										
	1996	1997	1998	1999	2000	2001-2002	2003-2004	2005-2006	2007-2010	2011-2015	TOTAL
* *PRJ-#* TRANSPORTATION	$0	$1,420,000	$7,090,000	$4,890,000	$6,480,000	$8,800,000	$9,570,000	$4,900,000	$51,630,000	$36,130,000	$136,510,000
WATER	$0	$532,000	$2,088,000	$2,308,000	$2,382,000	$2,480,000	$2,200,000	$2,200,000	$5,090,000	$18,920,000	$38,200,000
WASTEWATER	$0	$80,000	$400,000	$50,000	$80,000	$890,000	$175,000	$175,000	$480,000	$8,300,000	$10,630,000
HABITAT MANAGEMENT	$0	$2,800	$464,600	$180,800	$19,600	$0	$0	$0	$0	$0	$668,000
DRAINAGE	$0	$0	$0	$270,000	$1,940,000	$0	$0	$0	$0	$0	$2,210,000
PUBLIC SERVICES	$0	$0	$0	$0	$0	$0	$1,110,000	$0	$0	$0	$1,110,000
TOTAL	$0	$2,034,800	$10,042,600	$7,698,800	$10,901,600	$12,170,000	$13,055,000	$7,275,000	$57,200,000	$63,350,000	$189,328,000

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFIC YEARS. PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION STUDY.
(see page PFIP 3-10)

Table PFIP 3-1

Capital Improvement Projects (CIP) Budget - Transportation

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,202.64

	TRANSPORTATION PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2001	2006	2007	2010	2011	2015
T-1	HWY 86	TOTAL COST	96		01		07		11	
	CONSTRUCT 4-LANE	$177,000,000	97		02					
	BYPASS FREEWAY	FORT ORD COST	98		03					$18,050,000
		$18,050,000	99		04		15			
			00		05				15	
					06					
T-2r	HWY I56	TOTAL COST	96		01		07		11	
	WIDEN TO 4-LANE	$50,000,000	97		02			$34,000,000		
	EXPRESSWAY	FORT ORD COST	98		03					
		$34,000,000	99		04		16			
			00		05				15	
					06					
T-3	BUS ACQUISITION	TOTAL COST	96		01		07		11	
	PURCHASE OF	$4,950,000	97	$330,000	02	$660,000				
	15 BUSES	FORT ORD COST	98	$330,000	03					$1,650,000
		$4,950,000	99	$330,000	04	$660,000	16			
			00	$660,000	05				15	
YEARS.					06	$330,000				
STUDY.	DAVIS RD	TOTAL COST	96		01		07		11	
IP 3-10)	4-LANE BRIDGE	$5,000,000	97		02			$2,030,000		
		FORT ORD COST	98		03					
		$2,030,000	99		04		16			
			00		05				15	
					06					
	BLANCO RD		96		01		07		11	
T-5.1	RESERVATION-SALINAS	TOTAL COST	97	$170,000	02					
	WIDEN FROM 2 TO	$1,440,000	98	$570,000	03					
	4-LANES	FORT ORD COST	99		04		16			
		$740,000	00		05				15	
					0					

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996–2000	2000	2001–2006	2006	2007–2010	2010	2011–2015	2015
T-5.2	COOPER-ALISAL RDS WIDEN FROM 2 TO 4-LANES ROAD, BRIDGE, ROW	TOTAL COST $10,930,000 FORT ORD COST $5,600,000	96 97 98 99 00	$1,200,000	01 02 03 04 05 06	$4,400,000	07 10		11 15	
T-6	RESERVATION RD WIDEN FROM 4 TO 6-LANES WITH TURNING LANES	TOTAL COST $4,010,000 FORT ORD COST $2,450,000	96 97 98 99 00		01 02 03 04 05 06	$480,000 $1,970,000	07 10		11 15	
T-7	RESERVATION RD CONNECTION CONSTRUCT NEW 4-LANE ARTERIAL	TOTAL COST $3,400,000 FORT ORD COST $2,800,000	96 97 98 99 00	$400,000 $2,400,000	01 02 03 04 05 06		07 10		11 15	
T-8	RESERVATION RD CONSTRUCT NEW 4-LANE ARTERIAL TO BARLOY CANYON RD	TOTAL COST $3,770,000 FORT ORD COST $3,100,000	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	$3,100,000
T-9	DEL MONTE BLVD IN MONTEREY WIDEN TO 5-LANES INCLUDING ROW ACQUISITION	TOTAL COST $10,000,000 FORT ORD COST $2,200,000	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	$2,200,000
T-10	DEL MONTE BLVD IN MARINA WIDEN TO 6-LANE AND ROW	TOTAL COST $5,570,000 FORT ORD COST $4,480,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$4,480,000	11 15	

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1995	2000		2006		2010	2011	2015
T-11	HWY 218	TOTAL COST	96						11	
	WIDEN TO 4-LANES	$3,590,000	97			$680,000				
	AND ROW	FORT ORD COST	98							
		$1,640,000	99		04	$960,000				
			00		05				15	
					06					
T-12	CALIFORNIA AVE	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$600,000	97	($600,000)	02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					
	(DCAG)	(GRANT)	99		04		10			
			00		05				15	
					06					
T-13	CALIFORNIA AVE	TOTAL COST	96		01		07		11	
	UPGRADE & EXTEND	$1,860,000	97	$280,000	02			$180,000		
	AS 2-LANE ARTERIAL	FORT ORD COST	98	$170,000	03					
	AND ROW	$700,000	99	$70,000	04		10			
			00		05				15	
					06					
T-14	CRESCENT COURT	TOTAL COST	96		01		07		11	
	EXTENSION TO	$720,000	97	$90,000	02					
	ABRAMS RD	FORT ORD COST	98	$630,000	03					
		$720,000	99		04		10			
			00		05				15	
					06					
T-15	VARIOUS LOCATIONS	TOTAL COST	96	($1,100,000)	01		07		11	
	SAFETY AND REHAB	$1,100,000	97		02					
	AS REQUIRED BY		98		03					
	GATE OPENINGS	FORT ORD COST	99		04		10			
	(DCAG)	(GRANT)	00		05				15	
					06					

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996 – 2000	2001 – 2006	2007 – 2010	2011 – 2015
	VARIOUS LOCATIONS	TOTAL COST	96	01	07	11
	STREET IMPROVEMENTS	$5,600,000	97	02		
T-16.1	RESERVATION RD	FORT ORD COST	98	03		
T-16.2	MONTEREY RD	$5,600,000	99	04	10	
T-16.3	ABRAMS RD		00	05		15
T-16.4	INTER-GARRISON RD			06		
T-16.5	PARKER FLATS RD		PRIORITIES FOR THESE STREET IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM PROJECT *T-15.*			
T-16.6	COE & EUCALYPTUS RDS					
T-16.7	NORTH SOUTH RD					
T-16.8	1ST AVE					
T-16.9	10TH ST					
T-16.10	3RD AVE					
T-16.11	NORMANDY RD					
T-16.12	8TH AVE					
T-16.13	COL. DURHAM RD					
	VARIOUS LOCATIONS	TOTAL COST				
	REHAB OF ARTERIALS	$4,400,000				
		FORT ORD COST				
		$3,080,000				
T-17.1	IMJIN RD	$550,000	96	01	07	11
T-17.2	NORTH SOUTH RD	$600,000	97 $550,000	02 $600,000		
T-17.3	2ND AVE	$430,000	98	03		
T-17.4	INTER-GARRISON	$600,000	99 $430,000	04 $600,000	10	
T-17.5	EUCALYPTUS	$900,000	00 $900,000	05		15
				06		
	VARIOUS LOCATIONS					
	GATEWAY IMPROVEMENTS AT ENTRY POINTS					
T-18.1	IMJIN RD	TOTAL COST	96	01	07	11
		$2,300,000	97	02		
		FORT ORD COST	98 $460,000	03		
		$460,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996–2000	2001–2006	2007–2010	2011–2015
T-18.2	NORTH SOUTH RD	TOTAL COST	96	01	07	11
		$3,200,000	97	02		
		FORT ORD COST	98	03		
		$640,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.3	11TH ST	TOTAL COST	96	01	07	11
		$1,000,000	97	02		
		FORT ORD COST	98	03		
		$200,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.4	NORTH SOUTH RD	TOTAL COST	96	01	07	11
		$1,200,000	97	02		
		FORT ORD COST	98	03		
		$240,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-18.5	INTER-GARRISON RD	TOTAL COST	96	01	07	11
		$1,500,000	97	02		
		FORT ORD COST	98	03		
		$300,000	99	04	10	
		+	00	05		15
	(DCAG 2ND ROUND)	(GRANT)		06		
T-19	12TH ST	TOTAL COST	96	01	07	11
	CONSTRUCT NEW	$4,150,000	97	02		
	4-LANE ARTERIAL	FORT ORD COST	98	03		
		$2,080,000	99	04	10	
			00	05		15
				06		
T-20	CALIFORNIA AVE	TOTAL COST	96	01	07	11
	CONSTRUCT NEW	$1,270,000	97	02		
	2-LANE ARTERIAL	FORT ORD COST	98	03		
		$480,000	99	04	10	
			00	05		15
				06		

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
T-21	8TH ST	TOTAL COST	96		01		07		11	
	UPGRADE NEW	$840,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98	$710,000	03					
	WITH TURNING	$710,000	99		04		10			
	POCKETS AND		00		05				15	
	LANDSCAPING				06					
T-22	INTERMODAL	TOTAL COST	96		01		07		11	
	TRANSIT CENTER &	$3,600,000	97		02			$900,000		
	PARK & RIDE FACILITIES	FORT ORD COST	98		03					$1,100,000
		$3,600,000	99		04		10			
			00	$1,600,000	05				15	
					06					
T-23	GIGLING RD	TOTAL COST	96		01		07		11	
	REBUILD AS 4-LANE	$1,760,000	97		02					
	ARTERIAL	FORT ORD COST	98	$210,000	03					
		$1,250,000	99	$1,040,000	04		10			
			00		05				15	
					06					
T-24	SALINAS ST	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$2,410,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					
		$2,410,000	99	$290,000	04		10			
			00	$2,120,000	05				15	
					06					
T-25	*REMOVED*									
T-26	IMJIN/12TH ST	TOTAL COST	96		01		07		11	
	WIDEN TO 4-LANE	$4,910,000	97		02	$2,460,000				
	ARTERIAL	FORT ORD COST	98		03					
		$2,460,000	99		04		10			
			00		05				15	
					06					

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996	2000	2001	2006	2007	2010	2011	2015
T-27	2ND AVE CONSTRUCT NEW 4-LANE ARTERIAL AND DEMOLITION	TOTAL COST $3,630,000 FORT ORD COST $2,790,000	96 97 98 99 00		01 02 03 04 05 06	$2,790,000	07 10		11 15	
T-28	COE AVE UPGRADE TO 2-LANE ARTERIAL	TOTAL COST NO IMPROVEMENTS PROPOSED FORT ORD COST	96 97 98 99 00		01 02 03 04 05 06		07 10		11 15	
T-29	2ND AVE WIDEN TO 4-LANE ARTERIAL	TOTAL COST $3,600,000 FORT ORD COST $2,600,000	96 97 98 99 00		01 02 03 04 05 06	$2,600,000	07 10		11 15	
T-30	CALIFORNIA AVE CONSTRUCT NEW 2-LANE ARTERIAL	TOTAL COST $1,510,000 FORT ORD COST $570,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$570,000	11 15	
T-31	8TH ST CONSTRUCT NEW 2-LANE ARTERIAL	TOTAL COST $2,000,000 FORT ORD COST $1,700,000	96 97 98 99 00		01 02 03 04 05 06		07 10	$1,700,000	11 15	

TRANSPORTATION PROJECTS											
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS								
PRJ-#	(FUNDING SOURCE)		1997	2000		2006		2010	2011	2015	
T-32	8TH ST	TOTAL COST	96		01		07		11		
	UPGRADE TO 2-LANE	$990,000	97		02						
	ARTERIAL	FORT ORD COST	98		03					$840,000	
		$840,000	99		04		10				
			00		05				15		
					06						
T-33	NORTH SOUTH RD	TOTAL COST	96		01		07		11		
	WIDEN TO 4-LANE	$2,640,000	97		02			$1,430,000			
	ARTERIAL	FORT ORD COST	98		03						
		$1,430,000	99		04		10				
			00		05				15		
					06						
T-34	NORTH SOUTH RD	TOTAL COST	96		01		07		11		
	UPGRADE TO 2-LANE	$3,520,000	97		02						
	ARTERIAL	FORT ORD COST	98		03					$1,900,000	
		$1,900,000	99		04		10				
			00		05				15		
					06						
T-35	GIGLING RD	TOTAL COST	96		01		07		11		
	CONSTRUCT NEW	$2,770,000	97		02			$1,970,000			
	4-LANE ARTERIAL	FORT ORD COST	98		03						
		$1,970,000	99		04		10				
			00		05				15		
					06						
T-36	EASTSIDE RD	TOTAL COST	96		01		07		11		
	CONSTRUCT NEW	$6,030,000	97		02			$4,370,000			
	2-LANE ARTERIAL	FORT ORD COST	98		03						
		$4,370,000	99		04		10				
			00		05				15		
					06						

TRANSPORTATION PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
T-37	EUCALYPTUS RD	TOTAL COST	96		01		07		11	
	UPGRADE TO 2-LANE	$2,880,000	97		02					
	ARTERIAL	FORT ORD COST	98		03					$2,880,000
		$2,880,000	99		04		10			
			00		05				15	
					06					
T-38	INTER-GARRISON	TOTAL COST	96		01		07		11	
	UPGRADE TO 2-LANE	$4,480,000	97		02					
	ARTERIAL	FORT ORD COST	98		03					$3,810,000
		$3,810,000	99		04		10			
			00		05				15	
					06					
T-39	ABRAMS RD	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$600,000	97		02					
	2-LANE ARTERIAL	FORT ORD COST	98		03					$600,000
		$600,000	99		04		10			
			00		05				15	
					06					
T-40	BLANCO ROAD EXTENSION	TOTAL COST	96		01		07		11	
	CONSTRUCT NEW	$4,080,000	97		02					
	4-LANE ARTERIAL	FORT ORD COST	98		03					
		$4,080,000	99		04	4,080,000	10			
			00		05				15	
					06					
	ALL TRANSPORTATION	TOTAL COST	96	$0	01		07		11	
	PROJECTS	$360,810,000	97	$1,420,000	02	$8,800,000		$51,630,000		
		FORT ORD COST	98	$7,090,000	03					$36,130,000
		$136,510,000	99	$4,890,000	04	$9,570,000	10			
			00	$6,480,000	05				15	
					06	$4,900,000				

Table PFIP 3-2

Capital Improvement Projects (CIP) Budget - Water System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	WATER SYSTEM PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1995	2000	2001	2006	2011	2010	2011	2015
W-1	WATER SUPPLY WELLS	TOTAL COST	96	($1,380,000)	01		07		11	
	REDRILL WELLS 29, 30, 31	$2,760,000	97	($1,380,000)	02					
	& 32 TO DEEPER AQUIFER	FORT ORD COST	98		03					
	(EDA GRANT)	(GRANT)	99		04		10			
			00		05				15	
					06					
W-2	DISINFECTION STATION	TOTAL COST	96	($160,000)	01		07		11	
	INSTALL NEW EQUIPMENT	$160,000	97		02					
	IN EXISTING PUMP STATION	FORT ORD COST	98		03					
	(EDA GRANT)	(GRANT)	99		04		10			
			00		05				15	
					06					
W-3	BOOSTER PUMPS AT	TOTAL COST	96		01		07		11	
	MAIN STATION	$3,830,000	97	$460,000	02					
	REPLACE MAIN PUMPS &	FORT ORD COST	98	$1,205,000	03					
	ELECTRICAL/STANDBY	$2,870,000	99	$1,205,000	04		10			
	POWER SYSTEMS - ZONES		00		05				15	
YEARS.	B & C				06					
STUDY.	E ZONE STORAGE TANK	TOTAL COST	96		01		07		11	
IP 3-10)	CONSTRUCT NEW 1.3 MG	$1,830,000	97		02					
	STORAGE TANK WITH	FORT ORD COST	98		03					
	CONNECTING PIPELINES	$1,370,000	99	$220,000	04		10			
			00	$1,150,000	05				15	
					06					

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	1996	2000	2001	2006	2007	2010	2011	2015
	WATER SYSTEM PROJECTS									
W-5	BOOSTER PUMP STATION	TOTAL COST	96		01		07		11	
	UPGRADE OF EXISTING	$280,000	97		02	$280,000				
	ZONE B TO ZONE C	FORT ORD COST	98		03					
	BOOSTER PUMP	$280,000	99		04		10			
	STATION		00		05				15	
					06					
W-6	STORAGE RESERVOIRS	TOTAL COST	96		01		07		11	
	REHAB EXISTING TANKS	$750,000	97	$22,000	02					
		FORT ORD COST	98	$183,000	03					
		$560,000	99	$183,000	04		10			
			00	$172,000	05				15	
					06					
W-7	DISTRIBUTION SYSTEMS	TOTAL COST	96		01		07		11	
	REHAB & UPGRADE	$8,630,000	97		02	$640,000		$1,280,000		
	EXISTING DISTRIBUTION	FORT ORD COST	98	$600,000	03					$1,670,000
	SYSTEMS OVER 75% OF	$6,470,000	99	$500,000	04	$640,000	10			
	SERVICE AREA		00	$500,000	05				15	
					06	$640,000				
W-8	METERING	TOTAL COST	96	($190,000)	01		07		11	
	METER INSTALLATION AT	$1,200,000	97	$50,000	02					
	EXISTING BUILDINGS	FORT ORD COST	98	$100,000	03					
	SCHEDULED TO REMAIN	$720,000	99	$200,000	04		10			
		+	00	$370,000	05				15	
	(FUNDING SOURCE)	(GRANT)			06					
	STORAGE RESERVOIRS	TOTAL COST	96		01		07		11	
	AND PUMPING STATIONS	$2,600,000	97		02					
W-9.1	ZONE B - NEW 3.0 MG	FORT ORD COST	98		03					$2,600,000
	STORAGE TANK AND	$2,600,000	99		04		10			
	BOOSTER STATION ON		00		05				15	
	INTER-GARRISON RD				06					

WATER SYSTEM PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
W-9.2	ZONE D - NEW BOOSTER PUMP STATION	TOTAL COST $690,000 FORT ORD COST $690,000	96		01		07		11	
			97		02			$690,000		
			98		03					
			99		04		10			
			00		05				15	
					06					
W-9.3	ZONE A - NEW 3.2 MG STORAGE TANK AND DISTRIBUTION REINFORCING LOOP IN MARINA VILLAGE AREA	TOTAL COST $2,130,000 FORT ORD COST $2,130,000	96		01		07		11	
			97		02					
			98		03					$2,130,000
			99		04		10			
			00		05				15	
					06					
W-10	DISTRIBUTION SYSTEMS NEW DISTRIBUTION FACS. TO SERVE NEW OR INTENSIFIED LAND USES IS THE AIRPORT, MBEST AND SW AREAS AS NEEDED	TOTAL COST $11,740,000 FORT ORD COST $11,740,000	96		01		07		11	
			97		02	$1,560,000		$3,120,000		
			98		03					$3,750,000
			99		04	$1,560,000	10			
			00	$190,000	05				15	
					06	$1,560,000				
W-11	ADDITIONAL WATER SUPPLY DESALINATION FACILITY TO MEET 1/3 OF THE POST 2015 WATER REQUIREMENTS	TOTAL COST $8,770,000 FORT ORD COST $8,770,000	96		01		07		11	
			97		02					
			98		03					$8,770,000
			99		04		10			
			00		05				15	
					06					
	ALL WATER SYSTEM PROJECTS	TOTAL COST $45,370,000 FORT ORD COST $38,200,000	96	$0	01		07		11	
			97	$532,000	02	$2,480,000		$5,090,000		
			98	$2,088,000	03					$18,920,000
			99	$2,308,000	04	$2,200,000	10			
			00	$2,382,000	05				15	
					06	$2,200,000				

Table PFIP 3-3

Capital Improvement Projects (CIP) Budget - Wastewater System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	WASTEWATER SYSTEM PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2001	2006	2007	2010	2011	2015
WW-1	UPGRADE EXISTING	TOTAL COST	96	($1,330,000)	01		07		11	
	SEWAGE PUMP AND LIFT	$1,330,000	97		02					
	STATIONS AND NEW		98		03					
	BOOKER STREET PUMP		99		04		10			
	STATION BYPASS SEWER	FORT ORD COST	00		05				15	
	(DCAG 2ND ROUND)	(GRANT)			06					
WW-2	TRUNK SEWERS AND	TOTAL COST	96		01		07		11	
	FORCE MAINS	$1,800,000	97	$30,000	02	$170,000		$480,000		
	REPLACE OBSOLETE	FORT ORD COST	98	$40,000	03					$600,000
	SECTIONS	$1,800,000	99	$50,000	04	$175,000	10			
			00	$80,000	05				15	
					06	$175,000				
WW-3	ORD VILLAGE PUMPING	TOTAL COST	96	($730,000)	01		07		11	
	STATION	$730,000	97		02					
	ENLARGE AND UPGRADE		98		03					
	EXISTING STATION	FORT ORD COST	99		04		10			
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15	
YEARS.					06					
STUDY.	GIGLING PUMP STATION	TOTAL COST	96	($1,280,000)	01		07		11	
IP 3-10)	BYPASS LINE	$1,280,000	97		02					
	NEW GRAVITY SEWER TO		98		03					
	ORD VILLAGE STATION	FORT ORD COST	99		04		10			
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15	
					06					

WASTEWATER SYSTEM PROJECTS											
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS								
			1996		2001		2007		2011		
PRJ-#	(FUNDING SOURCE)			2000		2006		2010		2015	
WW-5	INTERCEPTOR SEWER	TOTAL COST	96		01		07		11		
	NEW GRAVITY	$720,000	97		02	$720,000					
	INTERCEPTOR TO	FORT ORD COST	98		03						
	CONNECT AND CONVEY	$720,000	99		04		10				
	FLOWS		00		05				15		
					06						
WW-6	RESERVATION RD PUMP	TOTAL COST	96	($180,000)	01		07		11		
	STATION AND COLLECTION	$1,460,000	97	($1,280,000)	02						
	SYSTEM		98		03						
	NEW STATION AND MAINS	FORT ORD COST	99		04		10				
	(COMBINED DCAG ROUNDS 1&2)	(GRANT)	00		05				15		
					06						
WW7	EAST GARRISON PUMP	TOTAL COST	96		01		07		11		
	STATION AND OUTFALL	$410,000	97	$50,000	02						
	SYSTEM	FORT ORD COST	98	$360,000	03						
	PUMP STATION, FORCE	$410,000	99		04		10				
	MAIN AND GRAVITY		00		05				15		
	INTECEPTOR				06						
WW-8	WASTEWATER	TOTAL COST	96		01		07		11		
	TREATMENT CAPACITY	$7,700,000	97		02						
	BUY-IN PAYMENT TO	FORT ORD COST	98		03					$7,700,000	
	MRWPCA	$7,700,000	99		04		10				
			00		05				15		
					06						
	ALL WASTEWATER	TOTAL COST	96	$0	01		07		11		
	SYSTEM PROJECTS	$15,430,000	97	$80,000	02	$890,000		$480,000			
		FORT ORD COST	98	$400,000	03					$8,300,000	
		$10,630,000	99	$50,000	04	$175,000	10				
			00	$80,000	05				15		
					06	$175,000					

Table PFIP 3-4

Capital Improvement Projects (CIP) Budget - Habitat Management

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	HABITAT MANAGEMENT PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)			2000		2006		2010		2015
HM-1	POLYGON 1A MANAGEMENT PLAN	TOTAL COST $47 FORT ORD COST $47		$47						
HM-2	POLYGON 1B GATES, MANAGEMENT PLAN AND REVEGETATION	TOTAL COST $10,718 FORT ORD COST $10,718		$207 $3,312 $7,199						$285,000
HM-3	POLYGON 1A MANAGEMENT PLAN	TOTAL COST $104 FORT ORD COST $104		$104				$1,410,000		
YEARS.										
STUDY.	POLYGON 2A	TOTAL COST								
IP 3-10)	GATES, FENCING AND MANAGEMENT PLAN	$102,276 FORT ORD COST $102,276		$156 $102,120						

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS 1996	2000	2001	2006	2007	2010	2011	2015
HM-5	POLYGON 11A	TOTAL COST	96		01		07		11	
	POST & CABLE FENCE,	$277,249	97	$587	02					
	REVEGETATION PLAN,	FORT ORD COST	98	$117,010	03					
	MANAGEMENT PLAN,	$277,249	99	$159,652	04		10			
	FIRE PLAN, LOCKS,		00		05				15	
	MATERIALS AND SIGNS				06					
HM-6	POLYGON 11B	TOTAL COST	96		01		07		11	
	ROAD RESTORATION,	$10,615	97		02					
	MANAGEMENT PLAN AND	FORT ORD COST	98	$1,380	03					
	FIRE PLAN	$10,615	99	$9,199	04		10			
			00		05				15	
					06					
HM-7	POLYGON 17B	TOTAL COST	96		01		07		11	
	POST AND CABLE FENCE,	$217,615	97	$828	02					
	GATES AND LOCKS,	FORT ORD COST	98	$210,105	03					
	REVEGETATION PLAN,	$217,615	99	$3,301	04		10			
	MANAGEMENT PLAN,		00	$3,381	05				15	
	FIRE PLAN, SIGNS				06					
HM-8	POLYGON 19A	TOTAL COST	96		01		07		11	
	REVEGETATION PLAN,	$9,764	97		02					
	MANAGEMENT PLAN,	FORT ORD COST	98		03					
	FIRE PLAN, REVEGETATION,	$9,764	99	$1,035	04		10			
	AND ROAD RESTORATION		00	$8,729	05				15	
					06					
HM-9	POLYGON 20C	TOTAL COST	96		01		07		11	
	MANAGEMENT PLAN	$104	97	$104	02					
		FORT ORD COST	98		03					
		$104	99		04		10			
			00		05				15	
					06					

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000		2006		2010	2011	2015
HM-10	POLYGON 21A	TOTAL COST	96						11	
	REVEGETATION PLAN,	$4,969	97	$311						
	MANAGEMENT PLAN,	FORT ORD COST	98	$4,658	03					
	AND ROAD RESTORATION	$4,969	99		04		10			
			00		05				15	
					06					
HM-11	POLYGON 21B	TOTAL COST	96		01		07		11	
	ROAD RESTORATION	$7,855	97		02					
	MANAGEMENT PLAN	FORT ORD COST	98		03					
		$7,855	99	$414	04		10			
			00	$7,441	05				15	
					06					
HM-12	POLYGON 23	TOTAL COST	96		01		07		11	
	MANAGEMENT PLAN	$104	97	$104	02					
		FORT ORD COST	98		03					
		$104	99		04		10			
			00		05				15	
					06					
HM-13	POLYGON 30A	TOTAL COST	96		01		07		11	
	CHAIN LINK FENCE,	$24,774	97	$207	02					
	MANAGEMENT PLAN AND	FORT ORD COST	98	$24,567	03					
	SIGNS	$24,774	99		04		10			
			00		05				15	
					06					
HM-14	POLYGON 30B	TOTAL COST	96		01		07		11	
	SIGNS	$83	97		02					
		FORT ORD COST	98	$83	03					
		$83	99		04		10			
			00		05				15	
					06					

HABITAT MANAGEMENT PROJECTS

PRJ-#	PROJECT DESCRIPTION (FUNDING SOURCE)	CIP BUDGET	FUNDING PERIODS							
			1996	2000	2001	2006	2007	2010	2011	2015
HM-15	POLYGON 30C	TOTAL COST	96		01		07		11	
	SIGNS AND	$1,429	97	$104	02					
	MANAGEMENT PLAN	FORT ORD COST	98	$1,325	03					
		$1,429	99		04		10			
			00		05				15	
					06					
	ALL HABITAT	TOTAL COST	96	$0	01		07		11	
	MANAGEMENT PROJECTS	$668,000	97	$2,800	02					
	($s ROUNDED)	FORT ORD COST	98	$464,600	03					
		$668,000	99	$180,800	04		10			
			00	$19,600	05				15	
					06					

Table PFIP 3-5

Capital Improvement Projects (CIP) Budget - Drainage System

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

	DRAINAGE PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS							
PRJ-#	(FUNDING SOURCE)		1996	2000	2005	2006	2010	2010	2011	2015
D-1	STORM WATER OUTFALLS	TOTAL COST	96		01				11	
	B & C & D	$2,210,000	97		02					
	PROVIDE STILLING BASINS	FORT ORD COST	98		03					
	SPREADING BASIN.	$2,210,000	99	$270,000	04					
	REMOVAL OF OUTFALL		00	$1,940,000	05				15	
	PIPES				06					
	ALL DRAINAGE	TOTAL COST	96	$0	01				11	
	PROJECTS	$2,210,000	97	$0	02					
		FORT ORD COST	98	$0	03					
		$2,210,000	99	$270,000	04					
			00	$1,940,000	05				15	
					06					

NOTE: THE STAGING ALLOCATION DEPENDS UPON NPDES PROGRAM ENFORCEMENT SCHEDULES

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFI PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION S

(see page PFIP 3-10)

Table PFIP 3-6

Capital Improvement Projects (CIP) Budget - Public Services

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES

35,205.49

PUBLIC SERVICES PROJECTS									
	PROJECT DESCRIPTION	CIP BUDGET	FUNDING PERIODS						
PRJ-#	(FUNDING SOURCE)			2000		2006		2010	2015
PS-1	FIRE STATION	TOTAL COST							
		$1,110,000							
		FORT ORD COST							
		$1,110,000				$1,110,000			
	ALL PUBLIC SERVICES PROJECTS	TOTAL COST							
		$1,110,000							
		FORT ORD COST							
		$1,110,000				$1,110,000			

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFI PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION S (see page PFIP 3-10)

Table PFIP 3-7

Capital Improvement Projects (CIP) Budget - Summary

PRJ-# = PROJECT IDENTIFICATION NUMBERS FROM PROJECT SELECTION TABLES											
TOTAL PROJECT $S BY SYSTEM	BUDGET ALLOCATIONS BY YEAR										
	1996	1997	1998	1999	2000	2001-2002	2003-2004	2005-2006	2007-2010	2011-2015	TOTAL
* *PRJ-#* TRANSPORTATION	$0	$1,420,000	$7,090,000	$4,890,000	$6,480,000	$8,800,000	$9,570,000	$4,900,000	$51,630,000	$36,130,000	$136,510,000
WATER	$0	$532,000	$2,088,000	$2,308,000	$2,382,000	$2,480,000	$2,200,000	$2,200,000	$5,090,000	$18,920,000	$38,200,000
WASTEWATER	$0	$80,000	$400,000	$50,000	$80,000	$890,000	$175,000	$175,000	$480,000	$8,300,000	$10,630,000
HABITAT MANAGEMENT	$0	$2,800	$464,600	$180,800	$19,600	$0	$0	$0	$0	$0	$668,000
DRAINAGE	$0	$0	$0	$270,000	$1,940,000	$0	$0	$0	$0	$0	$2,210,000
PUBLIC SERVICES	$0	$0	$0	$0	$0	$0	$1,110,000	$0	$0	$0	$1,110,000
TOTAL	$0	$2,034,800	$10,042,600	$7,698,800	$10,901,600	$12,170,000	$13,055,000	$7,275,000	$57,200,000	$63,350,000	$189,328,000

* NOTE $5,600,000 FOR THE TRANSPORTATION COST IS INCLUDED IN THE TOTAL, HOWEVER WAS NOT ALLOCATED TO SPECIFIC YEARS. PHASING FOR THESE IMPROVEMENTS WILL BE BASED ON DEFICIENCY INFORMATION FROM A SAFETY AND REHABILITATION STUDY.
(see page PFIP 3-10)

3.5 UTILITY SYSTEMS TRANSITION STRATEGY

3.5.1 Background

The Record of Decision covering the closure of Fort Ord (December 1993) contained a number of mitigation measures related to utility systems transfer. Chief among these is Mitigation Measure 5 which states:

> *The Army will conduct periodic maintenance for infrastructure and utilities system components, until the system components are disposed, transferred, or abandoned. Utility systems include water supply and distribution, sewage collection and disposal, storm drainage collection and disposal, electrical and gas supply and distribution and telephone and communication systems.*
>
> ***Monitoring Program:***
>
> *Responsibility:* *Army*
>
> *Timing:* *As-needed basis; pursuant to standard maintenance procedures for infrastructure*
>
> *Standards for Compliance:* *Continuous maintenance of service*
>
> *Compliance Verification:* *Army*

The standard for compliance set forth in Mitigation Measure 5, i.e. continuous maintenance of service, has become of primary importance to the Fort Ord Reuse Authority (FORA) which has also articulated the goal of "seamless" transition of utility service from military to civilian operational control.

The initial Fort Ord Base Reuse Plan approved by FORA in December 1994 and the Fort Ord Reuse Infrastructure Study (FORIS) Master Plan (January 1995) have provided the basis for and report on the utility systems upgrading and expansion requirements as specifically presented in the 04-03 Infrastructure Cost Analysis (04 indicates the fourth plan, 03 indicates the third modification of the analysis). More recently, during the latter half of 1995, a new plan with somewhat reduced buildout expectations has been brought to FORA by the EDAW/EMC Team. As the result, a new Infrastructure Cost Analysis designated 05-04 has been prepared which is reported in Chapter PFIP 2.

During 1995, members of the Army's Training and Doctrine Command (TRADOC) who assumed Garrison responsibility from the Army's Forces Command (FORSCOM) in October 1994 proceeded to initiate transfer of three of the operating utility systems, namely, electrical and natural gas distribution and telephone communication systems, to privately-held public utility corporations. In a series of meetings between Army representatives and Pacific Gas and Electric

Company (PG&E) and with the nominal acquiescence of FORA, negotiations to transfer the existing on-base electrical and gas distribution systems has been on-going over the past year. Although initially rumored to involve a PG&E demand for $48 million as the cost of upgrading the existing Army systems to California Public Utility Commission (CPUC) standards, it is now assumed that with certain abandonments of service, PG&E will take over the electrical and gas systems from the Army as a zero-cost negotiated sale.

Parallel negotiations with Pacific Bell Co., the privately-held public utility company which now serves the newer housing areas within Fort Ord and provides all off-site connecting communications lines to the Base Telephone Exchange have proved to be less fruitful. As the result of failed negotiations with Pacific Bell, the Army circulated a request for proposal from any qualified provider of telephone communication service to take over the Army's on-base system and to continue telephone service to the Presidio of Monterey (POM) Annex. The opening of proposals was scheduled for February 14, 1996. Specific Army action on the telephone communication system transfer is currently under reconsideration.

The transfer of the utility systems as discussed above has revealed an on-going conflict between Army and FORA interests. The particular transfers from the Army to PG&E and to Pac Bell were recommended in the FORIS Master Plan. In the actual negotiations, however, concerns over utility right of way transfers surfaced as a major stumbling block. The public utility companies had the goal of avoiding utility relocation costs to future public rights of way and also to minimize franchise fees. The municipal members of FORA were equally committed to maintaining the well-established precedents under which public utility companies now operate in California.

At the same time, the Army's intention to minimize its on-going maintenance and operational responsibilities in response to Mitigation Measure 5 has become clear. As the potential for generating income for the Base Closure Account has diminished with the recognition of offsetting infrastructure upgrade and demolition cost, and with the President's 5 Point Plan as well as the Pryor Amendment focus on economic revitalization goals, the Army's remaining financial option is to rid itself of ongoing-maintenance/operating costs as soon as possible. From FORA's point of view, however, it is equally clear that the operational costs associated with utility systems operations should not be assumed until sufficient base reuse has been realized to pay the price of utility systems operation and maintenance.

Simply stated, then, utility transfer strategy at Fort Ord confronts the mutually exclusive goals of a seller (Army) who can gain only by a quick transfer of utility operational responsibility and a buyer (whether FORA or Public Utility) who needs to avoid a financial commitment until the Army's land transfer process AND market acceptance of the reuse opportunity results in sufficient on-base occupancy to carry the utility costs. This dilemma, it would appear, is not unique to Fort Ord. It is also apparent that the operational planning context to which FORA's Consultant Team responds is meant to favor civilian reuse feasibility and not Army preference for an immediate termination of utility service responsibility.

3.5.2 Transition Strategy for Energy-Related Utility Systems

As pointed out in the FORIS Master Plan , the existing electrical power supply situation at Fort Ord exhibits the weakness of a single source of power at the PG&E owned transformer substation in the vicinity of Hayes Hospital. As conceptualized in FORIS, redundancy in power source would be necessary for a within-the-base distribution system to serve the Reuse Plan. FORIS also suggests that this redundancy should be accomplished by construction of a new transformer station in the vicinity of the Reservation Road and Blanco Road intersection. Unfortunately, it is also apparent that the cost of achieving redundancy and, thus, a defense against power outage from a single source can only be achieved at an uneconomic cost requiring more than 50 years of payout before break-even.

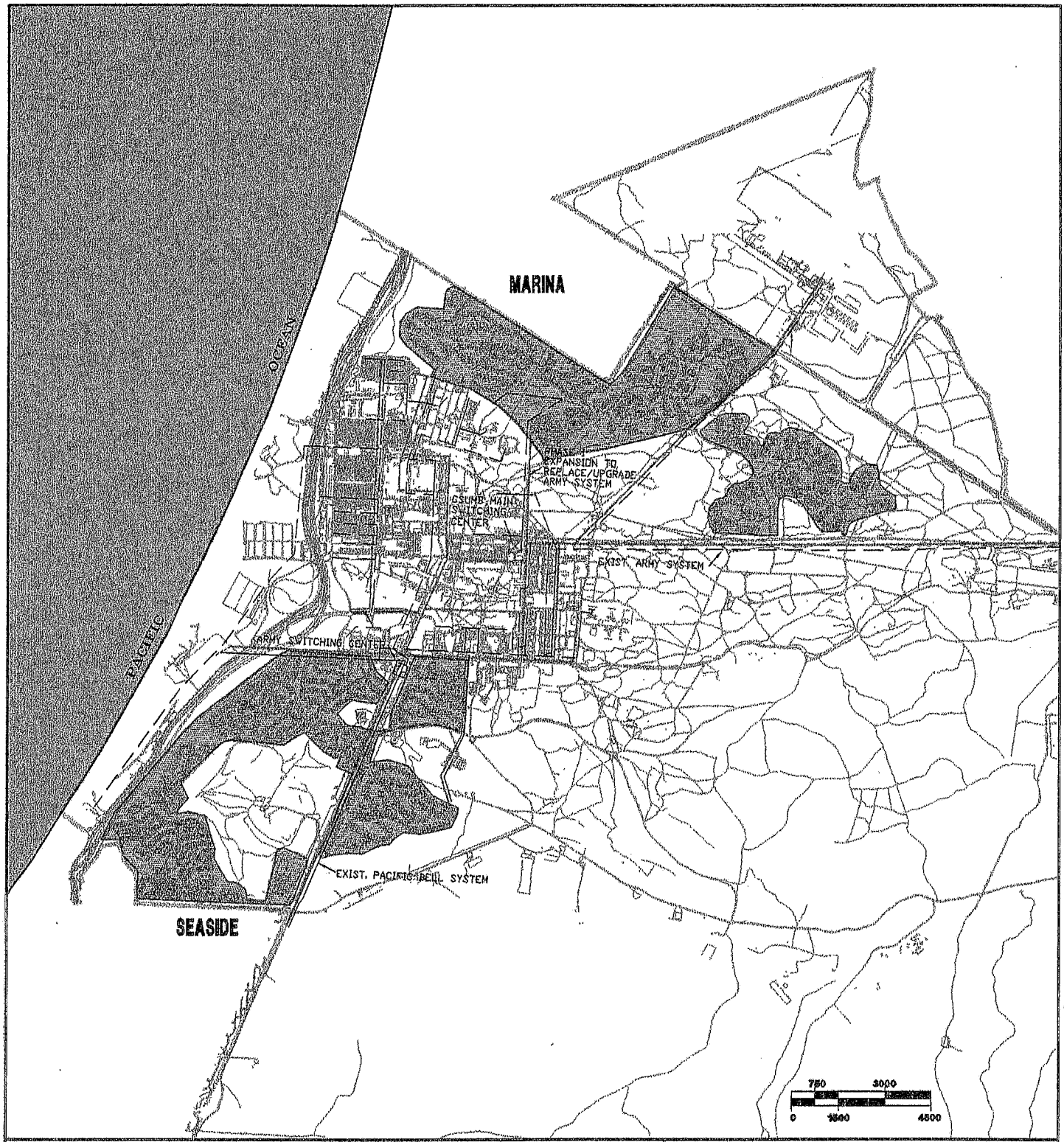
PG&E, on the other hand, has the option of adding outage protection on Fort Ord from neighboring distribution systems in Seaside and Marina. In addition, as power supplier of record in the area, PG&E also has the valid reputation as a reliable purveyor of electrical energy.

In the case of natural gas supply, the advantage of PG&E as the logical local purveyor is somewhat less apparent. Because of the Company's high pressure gas supply transmission which parallels Hwy. 1 through the Base and then bifurcates the main reuse area via an east-west gas main which roughly parallels InterGarrison Road, there is no absence of service points at which local distribution can be separated from the transmission system. This fortunate physical configuration allows a number of service options to be conceptualized and economically implemented. In addition, PG&E's operating philosophy appears to be more supportive of local distribution alternatives for natural gas. Consequently, the FORIS Master Plan reports a stronger economic potential for municipal or FORA gas distribution configurations than for a similar electrical distribution system.

On balance, however, the unproved operating potential of local land use entities in the role of energy purveyor argues for perpetuation of PG&E's well-established role. Success in attracting reusers to Fort Ord must be based on minimizing the risk of tenancy. It appears, therefore, that the proven service capability of PG&E is a significant asset in support of reuser activities. Consequently, the utility transition strategy for energy systems argues for a negotiated sale of the electrical and gas distribution systems by the Army to Pacific Gas and Electric as the energy supply purveyor under control of CPUC.

3.5.3 Transition Strategy for the Telephone Communication System

As reported previously in Section 3.5.1, Pacific Bell (Pac Bell) telephone company has withdrawn from negotiations for a negotiated sale of the existing Army telephone system. As shown by the map on the following page (Figure PFIP 3-1), Pac Bell already serves a significant portion of Fort Ord's on-base housing. Consequently, the failure of negotiations appears to have more to do with Pac Bell's reluctance to inherit responsibility for an antiquated system as well as to accept potential relocation costs as opposed to any absence of interest in serving the reuse area.



FORT ORD — CALIFORNIA

TELEPHONE DISTRIBUTION SYSTEM

LEGEND

- ARMY SYSTEM
- PACIFIC BELL SYSTEM
- PHASE I EXPANSION TO REPLACE/UPGRADE ARMY SYSTEM
- CURRENT AREAS SERVED BY PACIFIC BELL SYSTEM
- FORT ORD BOUNDARY

REIMER ASSOCIATES

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FIGURE PFIP 3-1

PLOT DATE: 3/14/96

PAGE PFIP 3-31

DRAWN BY: EPA

CHECKED BY: POR

Because of the apparent extent of telephone service currently provided by Pac Bell up to the boundaries and even within the Fort Ord Military Reservation, the FORIS Master Plan recommended that this utility systems be transferred to Pac Bell. In addition, Pac Bell's provision of significant fibre-optic data transmission capacity for the Monterey Bay Region through its California Research and Education Network (CALREN) program was seen as a favorable and supportive contribution to the reuse potential at Fort Ord. What is at stake in the failed negotiations between the Army and Pac Bell is the "seamlessness" of transfer rather than any competing transition strategy.

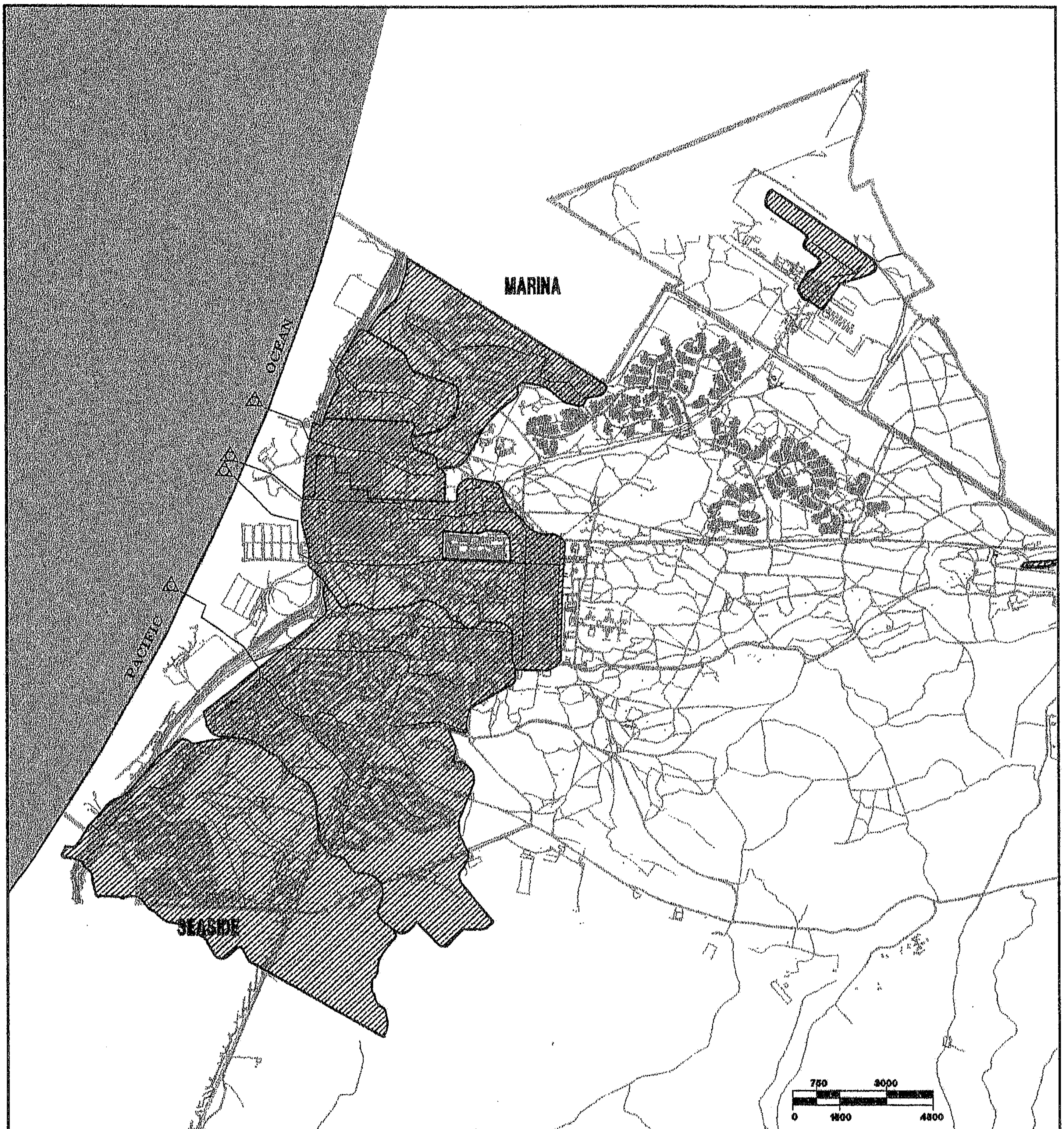
Pac Bell appears ready and willing to extend voice, T.V. and data communication services anywhere on Fort Ord but prefers to do so under its current service extension rules. In effect, the economics of new system extension and resulting operational efficiencies outweighs any short term financial gain from an existing customer base. Unfortunately, this decision by Pac Bell - while not altering the likelihood that the FORIS recommendation as telephone service provider will prevail - faces FORA with more of a priority to complete some form of public right of way transfer from the Army so as to furnish Pac Bell the necessary routes for service extensions.

As of March 1, 1996 there has been no formal announcement of the Army's position concerning transfer or abandonment of the existing on-base telephone system. In light of the failed negotiations with Pac Bell and/or the unopened solicitations of interest from other qualified communication purveyors. This issue is in limbo. Clearly, FORA has no financial means, no operating capability nor any immediate necessity to become the telephone system owner/operator. The most apparent transition strategy appears to be that of reaching agreement with Pac Bell and the land use entities who will ultimately be responsible for Fort Ord land as to a mutually satisfactory means of making public right of way available for utilities extension purposes.

The marketing necessity of offering reuse lands at Fort Ord with a high level of voice, T.V. and data communication service is readily apparent. Pac Bell is seen as a currently available and highly reliable communication services provider. There appears to be no transition strategy evident other than for FORA to engage Pac Bell in right of way provision discussions if or when the Army notifies FORA of its intent to abandon the existing telephone system. Continuity of communication service to the POM Annex, to DFA's and to other Federal installations will be an Army problem while direct Pac Bell service to CSUMB and to the Airport area will have to be separately negotiated by the public benefit transferees.

3.5.4 Transition Strategy for Existing Storm Water Drainage Facilities.

The transition of responsibility for drainage facilities is singularly related to the piped systems which currently serve the cantonment areas of the Main Base at Fort Ord. As can be seen from the map on the following page (Figure PFIP 3-2), the existing drainage systems generally serve the areas westerly of 7th Avenue to Hwy. 1. Exceptions are found in the isolated drainage systems serving the Airport and East Garrison. In those areas it is expected that the maintenance



FORT ORD — CALIFORNIA

STORM WATER SYSTEM

LEGEND

- EXISTING IMPROVEMENTS
- DRAINAGE BOUNDARIES
- OUTFALL TO BAY
- FORT ORD BOUNDARY

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NORTH

FIGURE PFIP 3-2

PLOT DATE: 3/14/96

PAGE PFIP 3-33

DRAWN BY: EPA

CHECKED BY: POR

responsibility for the existing drainage systems accompanies the Public Benefit Conveyances. For the future drainage facilities necessary to serve new reuse polygons beyond the cantonment area, it is expected that individual percolation basins receiving runoff from adjacent development will constitute the means of storm water disposal. Consequently, maintenance responsibility is expected to remain with the future reuse activity and no transition strategy is required.

In the case of the four existing piped drainage systems which now extend West of Hwy. 1 to ocean outfalls beyond the Fort Ord Dunes, there is a financial responsibility which must be attached to the transition strategy. It is a forgone conclusion that control of surface water discharge to the Monterey Bay Sanctuary as well as impending National Pollution Discharge Elimination Standards (NPDES) will require abandonment of the existing drainage outfalls. Fortunately, there is no opposition from the State Parks and Recreation Department for a permanent solution to the existing drainage discharges by simply "Daylighting" the current flows by ending the piped systems west of Hwy. 1 within the small arms ranges. With proper grading, stilling basins to trap suspended material in the drainage runoff followed by natural drainage swales would serve to return riparian habitat to the area. At the same time, elimination of the ocean-front discharge structures would remove both hazards and visual blight from the beaches.

The transition strategy, then, starts with a means of insuring funding for the drainage system modifications described above. Of the four systems involved, the largest one serves the POM Annex, two serve CSUMB and the Marina Town Center area, and the fourth serves the Marina University Village area. In the case of the POM Annex system, the Army's studies which accompanied the Base Closure E.I.S. cited a POM Annex collateral cost of $1,000,000 to modify the drainage outfall. It is expected that both the cost of drainage modifications (currently estimated at $1,380,000) and the continuing responsibly for maintenance will rest with the Army as part of POM Annex operations or as may be transferred under a third party maintenance contract.

The remaining three systems with ocean outfalls, as well as the two additional piped systems to the North which currently discharge to percolation areas, all serve the City of Marina and/or CSUMB. In order to generate the estimated $2,210,000 to truncate the ocean outfalls and create new discharge conditions, it is proposed that an assessment of $1750 per acre be levied against the specific acreage which is tributary to the three ocean outfalls. In addition, this same area plus the northerly polygons in the City of Marina tributary to the two remaining piped drainage would be combined into a Drainage Maintenance Assessment District which would pay an annual fee to Marina to meet drainage facility maintenance costs. By this means, a specific transition of responsibility for the existing drainage systems can be anticipated and the means of funding both current modifications and on-going maintenance provided.

3.5.5 Transition Strategy for Existing Roadways

The transition process for existing roadways can be simply stated and has been approved by all land use jurisdictions. The transitional goal is that of assigning ownership to individual land use

jurisdiction for the rights of way which fall within their jurisdictional boundaries. There are two types of right of way to be transferred; namely

1 - Those created around the existing roadway centerlines which are to remain in the Reuse Plan as major corridors, and

2 - Those created in new location to augment the current roadway system and/or to serve future reuse areas.

The actual transfer procedure for both right of way and continuing maintenance responsibility is now expected to be accomplished by means of an overall Economic Development Conveyance of base-wide property from Army to FORA followed by a subsequent transfer of jurisdictionalized segments to the municipalities and County. FORA's responsibility to carry out its reuse planning mission for the entire base is realized at this transfer stage. The jurisdictions will receive land through which the roadway corridors of base-wide significance will have been reserved for public access and will be continuos across jurisdictional boundaries.

The only exception to jurisdictional control over internal transportation corridors will apply to the Intermodal Transportation Corridor right of way across Fort Ord claimed under Public Benefit Conveyance (via FTIP designation) by the Transportation Agency of Monterey County (TAMC) and to ownership of the Multi-Modal Transfer Center footprint as well as two Park and Ride Lots claimed by TMAC or Monterey Salinas Transit (MST)

There are several other rights of way for State or County Highways for which transfer of ownership and maintenance responsibility has already been accomplished. Monterey County has received title to those rights of way for Reservation Road between the Marina City Boundary and Hwy. 68 which fall within the Military Reservation. Monterey County has received title to Blanco Road right of way between the northern Fort Ord boundary and Reservation Road. State of California, Department of Transportation, will receive title to the right of way for Hwy. 1 and this agency also holds an easement over a 1000' wide corridor along the South boundary of Fort Ord which is being studied as an alternate route to Hwy. 68.

The individual jurisdictions must also come to grips with another level of transitional strategy for the myriad of existing roadways of less than base-wide significance. These existing streets will "come with the land", so to speak, with obvious retrocession of any Army or FORA responsibility. Many of these roadways, although paved, are clearly superfluous to future use. For reasons of public safety and security, many of them need to be barricaded or obliterated particularly so when they provide ready access to habitat management areas. Consequently, a roadway elimination program should be planned by each jurisdiction.

A second consequence is the inheriting of what are likely to become public streets for local service within neighborhoods. While driveable and currently providing utility system corridors, virtually all of these Army-constructed streets are deficient in width when measured against municipal standards, and deficient in capacity when measured against parking requirements. A

strategy to designate these streets for private ownership and require construction of new off street parking pads may be one solution.

In any case, the transition of roadways of base-wide significance for Army to FORA to individual jurisdictions has been defined and will occur at the completion of the Economic Development Conveyance process. FORA commitment of Economic Development Administration (EDA) grant funds to provide safety upgrades, signing and stripping is currently underway, for some 26 miles of on-base roadways. While this commitment signifies FORA's intention to help the Army meet the goals of ROD Mitigation Measure 5, it also apparent that a care and custody agreement with the Army for on-base roadway, water supply and wastewater collection systems is long overdue. Current efforts to conclude a maintenance agreement between County and Army constitutes the best current transitional strategy for a "seamless" operational transition.

3.5.6 Transition Strategy for Water Supply and Distribution System

With the formation of FORA in May of 1994, a significant repository for information concerning water supply, demand and operational factors has become available. This information is reported in the Fort Ord Reuse Infrastructure Study (FORIS) and, based on the FORIS report, presentations made to FORA's Infrastructure Technical Advisory Committee (ITAC), to FORA's Administration Committee and to the FORA Board in December of 1994.

At the direction of the FORA Administration Committee, ITAC was also requested to summarize water and sewer system operational alternatives. That summary, became available for FORA review in early 1995. On March 18, FORA convened a Water Workshop open to the public and specifically intended to provide a common information base on water supply issues for the FORA Board Members. Representatives from the Monterey County Water Resources Agency, the FORIS Team, and the FORA Infrastructure Technical Advisory Committee participated in the presentation. Prior to the Workshop, a Water Information Package was distributed to all FORA participants which included extracts from the FORIS Report and ITAC's alternatives analysis.

The Water Workshop was successful in focusing FORA attention on upcoming decisions concerning water supply issues for Fort Ord. At the same time, detailed requests for historic water use figures for each reuse polygon as well as initial discussions on water allocation intentions emerged as issues on which more information was desired. Continuing attention to water supply and operational subjects became the venue of the Administration Committees Ad Hoc Water Subcommittee.

It is timely for FORA to reach agreement as to the policies which will guide the transition of Fort Ord's water supply and distribution facilities from Army to Civilian control. The immediacy of this transition is apparent in the letter from Col. Roszkowski which can be found on the following pages.

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONROE, VIRGINIA 23651-5000

May 19, 1995

REPLY TO
ATTENTION OF

Base Realignment and
Closure Office

RECEIVED
MAY 3 1 1995

Mr. Jack Barlich, Chair
Fort Ord Reuse Authority
Building T2800, 12th Street
Marina, California 93933

Dear Mr. Barlich:

The Army has received several unsolicited proposals for the purchase of water and sewer (wastewater) systems on Fort Ord. Before the Army proceeds with disposal of these systems as well as the storm water system, we would like to determine if the Fort Ord Reuse Authority (FORA) is desirous of obtaining ownership. FORA can obtain ownership by one of three methods--public benefit conveyance, economic development conveyance, or negotiated sale.

- Public benefit conveyance for public health purposes. The utility systems as well as other property declared excess to Army's needs were screened during the initial screening of former Fort Ord property. During this period, the Cities of Marina and Seaside submitted applications to Health and Human Services (HHS) to acquire the water and sewer systems at Fort Ord. These applications were returned to the Cities in a letter from HHS dated August 16, 1993, with the explanation that HHS was "able to accept an application from only one entity, which must carry full responsibility for the use of the property." As the legislated reuse authority, FORA qualifies as the preferred entity. To utilize this method of conveyance, an application should be submitted to and approved by the sponsoring Federal agency, HHS.

- Economic development conveyance (EDC). If the transfer of utilities is desired by EDC, they should be included as part of an economic development conveyance request for significant portions of Fort Ord.

- Negotiated sale at estimated fair market value.

Figure PFIP 3-3

If FORA decides to obtain the water and sewer systems, we will include the water allocations and wastewater treatment capacity of Fort Ord with the exception of those determined by the Army to be necessary for the Presidio of Monterey Annex. These water allocations and the wastewater treatment capacity will be retained by the Army.

The Army's disposal action may also include the water and sewer systems located within property being retained by the Federal government (POM Annex, Silas B. Hayes Building, U.S. Army Reserve Center, and Bureau of Land Management) and any systems previously identified for support of these properties. The systems will also include those parts that were retained by the Army in previous parcel transfer/disposals, e.g., universities, etc.

If FORA decides not to take either the water or sewer system, the Army intends to proceed with disposal. This will be done by competitive sale. We will consult with FORA on the development of the solicitation package and criteria for ranking of proposals received. Our goal is to dispose of the systems to purveyor(s) who can provide continued quality service to the reusers of Fort Ord and the remaining Federal government activities.

Request FORA notify this office within thirty (30) days from the date of this letter of their intentions regarding ownership of these systems.

This letter has been coordinated with Headquarters, Department of the Army, U.S. Army Corps of Engineers, U.S. Army Center for Public Works, and the Presidio of Monterey.

Sincerely,

Joseph A. Rosikowski
Colonel, U.S. Army
Director, Operations

Copies Furnished:

Honorable Sam Farr, House of Representatives
Office of the Secretary of Defense, Base Transition Office

Figure PFIP 3-3 cont'd

It is significant that Col. Roszkowski's letter offers the possibility of a Public Benefit Conveyance as the means of transfer of the water supplies and facilities from the Army to FORA. This conveyance would appear to be in FORA's best interests and, as such, warrants a favorable response.

3.5.6.1 FORA Water Service Implementation Goals

In the process of exploring water supply and operation options, the FORA Committees have also become forums for articulation of the individual goals and preferences of FORA members. This section summarizes both the consensus goals and subjects where important differences of opinion were evident.

- Continuity of supply, reliability of delivery and seamlessness of transfer from Army to civilian control are common goals. Support for sufficient allocation of water to insure CSUMB "mid-range" buildout also has general support.

- The manner in which water service responsibilities are transferred and future water policies are set should reflect a "statesman" role by FORA.

- When defining its long-term water supply program, FORA should avoid conflict with established agricultural interests, and should institute review/allocation procedures which will not allow "hoarding: of water resources by any jurisdiction.

- Although a wholesale/retail organization of the water delivery function has been proposed, some ITAC members prefer the simplicity of a single water agency or public utility. At the same time, however, other members do not wish to see a single purveyor and favor individual land use agencies having the option to make their own arrangements within City/County boundaries.

- In establishing water rates, a strong diversity of opinion is apparent between those who wish to minimize operating costs for the first reusers and those who prefer to set a "desal" water rate initially which will generate a sinking fund for construction of the future desalination facility.

- Concerning allocation of the current water supply, a similar difference of opinion exists. Those in favor of protecting the initial interest of reusers and the cities call for definitive allocations while those who see the assurance of future supply as the common goal oppose allocations. The no allocation view would be coupled with the setting of a water rate structure which produces a reserve to cover future water supply costs and thus would assure a continuity of supply for all reusers.

Subsequent AdHoc Water Subcommittee discussions have been interpreted to reflect FORA's objectives and approach concerning water supply as follows:

FORA should:

- o RETAIN CONTROL OF AT LEAST 10% OF THE AVAILABLE WATER RESOURCES as a strategic reserve while allocating the remainder to the land use jurisdictions as an assured supply to encourage reuse.

- o USE THE REUSE INFRASTRUCTURE STUDY AS A GUIDE TO FORECAST CAPITAL NEEDS AND REASSESS THOSE NUMBERS ROUTINELY so as to determine need to shift emphasis on improvement or to adjust the rate of capital improvement funding.

- o ESTABLISH A THRESHOLD OF ACTUAL WATER USAGE THAT WILL TRIGGER INITIATION OF THE DESALINATION FACILITY FINANCING FUND. Water rates should be "ramped up" from initial O&M costs to, first, include repair and replacement reserves and, finally, to meet the desalination facility financing requirements beyond the threshold point.

3.5.6.2 Concerning Strategic Water Planning

This discussion intends to place water resource and operational issues impacting the reuse of Fort Ord into their regional context. Water has long been and will continue to be a contentious issue for both the Monterey Peninsula and Salinas Valley. Although the region is arid and environmentally sensitive, it sustains significant agricultural and urban economies. Any reuse of Fort Ord resulting in a marked increase in water demand will require compromise, creativity and difficult decisions. Institutional, jurisdictional, economic and political forces may pose more of a challenge than will technical issues.

FORA must decide upon the ownership and operation of water supply systems, both existing and future, to provide potable and non-potable water to the base. Supplies will include some combination of groundwater, desalinated seawater, and reclaimed wastewater. Institutional relationships and the reference for either public or private system ownership will largely influence the selection of water supply purveyor(s). The water distribution purveyor could be the water supply purveyor, or a completely separate agency. Potable and non-potable water distribution systems should probably be owned and operated by the same entity to avoid right-of-way complexities and minimize the chances for cross connecting the systems. Some of the following factors will play a role in determining the future purveyors. Purveyor options include, but are not necessarily limited to:

- Form a new public utility to supply and/or distribute water to Fort Ord. This agency would work under the auspices of both MCWRA and MPWMD; and would own and operate a desalination plant and potentially a reclaimed water treatment facility.

- Chose an existing agency to purvey water, such as the MCWRA, one of the cities, or MCWD.

- Extend the jurisdiction of suppliers which are currently outside of Fort Ord; for example, the Marina Coast Water District.

- Grant a private franchise to a public utility (e.g. California American Water Company or California Water Service).

- Obtain appropriate legislation so that the Fort Ord Reuse Agency could assume water supply duties.

Jurisdictional Issues

The Fort Ord base is under the jurisdiction of both the Monterey County Water Resources Agency (MCWRA) and the Monterey Peninsula Water Management District (MPWMD). Each of these agencies have specific reporting requirements regarding extractions and well registration. Each of these agencies is also empowered to control water use if that use will impact existing supplies.

The privatization of federal land and the possibility of adjudication raises significant water rights issues. Privatization of federal land may impart to the newly created parcels overlying water rights. If so, each land owner would be legally entitled to unregulated use (as long as the use was reasonable and beneficial) of underlying water on the parcel. This could impact the ability to limit water use to the historical demand. Some legal mechanism of transferring water rights to the operator of the water system will likely be necessary.

The possibility of adjudication of the Salinas Groundwater Basin raises questions regarding the ability to pass extraction history along with the land during the conversion of federal to private land. Improper handling of land transfer could result in the inability to maximize the use of the limited water supply. Some questions that will eventually be answered include:

- Will individual properties be given a prorata share of the historic pumping?

- If land is transferred to private holding yet remains undeveloped for a period of time, does extraction history persist on this land?

Economic and Political Strategies

In light of the cost of desalinated water (capital improvements alone cost $6 million for every 1 MGD of capacity; operational costs are even higher compared to annualized capital cost), the use of desalination should be delayed as long as possible. Reclaimed water use will determine the amount of desalinated water required, and the economics of delivering the reclaimed water to users will probably be more important than the economics of obtaining the water. Analysis shows that the annual costs of delivering reclaimed water from elsewhere is roughly equivalent to treating wastewater on base. In fact, when examined on a capital basis alone, the cost of reclaimed water (regardless of source) is not that different than the cost of desalinated water. However, the operational costs of desalinating seawater are much higher than those of treating municipal wastewater.

The water system infrastructure proposed to serve ultimate development at Fort Ord has been based on the premise that one entity would own and operate the system. That is, the new service area would be contiguous with the existing Fort Ord boundaries. This is consistent with recommendations from the California Department of Health Services (letter of June 6, 1994) and the Monterey County Water Resources Agency. There has been some interest, however, from parties interested in multiple political jurisdictions for water service. There is also a cost savings to be realized of the Southwest and Northwest reuse polygons are served from water systems adjacent to the Base rather than by system extensions from within the Base.

From a public health, economic, and operational standpoint, operating a water system of this size under a single jurisdiction will always be the most attractive option. Fort Ord is situated on top of old dune sand dunes, and the resulting variation in topography necessitates several water service pressure zones. Any politically driven jurisdictional boundaries will almost invariably cross one or more of these pressure zones. Each zone is a water service entity unto itself. Water enters each zone from either a supply source or another zone, and is either consumed within that zone or sent off to another. The system also operates so that for the most part, water for fires and other emergency demands is stored and distributed within the zone of demand. In short, each zone must stand on its own.

To illustrate this, a portion of Fort Ord's ultimate system has been broken off into a "Seaside Service Area" for a two purveyor (water retailer) system. The jurisdictional boundary for this illustrative case would follow Seaside's City Limits on the east, the southwest boundary of CSU-Monterey Bay on the north, and the Highway 1 on the west. A small portion of the southern development area would also be included in the Seaside Service Area.

Accommodating two separate water systems would necessitate an independent potable water supply and transmission system to each water purveyor as well as two separate sets of storage and distribution facilities. The most cost-effective water supply and transmission system alternative appears to be that consisting of an independent water wholesaler who would deliver water from the Salinas Valley, blend this water with local wells and a new desalination plant, and distribute the water to each of the two

water purveyors' boundaries. Because of the hilly nature of the old sand dunes, at least two pump stations would be required along this transmission line. Since demand at each system turnout could vary greatly, equalization tanks would also be necessary to provide smooth pump operation. At least $5.8 million in additional capital improvements would be needed to facilitate a two purveyor system. Most facilities will be required immediately upon system separation, with the exception of a desalination supply line and possibly some staged pumping. In addition, more local storage facilities and perhaps some additional local distribution pipeline may also be needed. These local system costs are not included in the $5.8 million cited above.

The concept of a two-purveyor system could be expanded to a multi-purveyor system with three or more separate operating agencies. In general however, as more and more agencies are added, the operational and economic problems mount exponentially.

3.5.6.3 Options Matrix

The following matrix displays the range of options which have been open to discussion during FORA consideration of water supply and operational issues.

Table 3-8

Water-Related Issue	← RANGE OF OPTIONS →			
Operation and Ownership of Current Water Supply	Existing city or county agencies to handle water production and purveyor functions or Cities and County independently select water purveyors	Private franchise granted to public utilities for total water service or Service areas of existing water supply agencies are expanded to include Fort Ord or MCWRA serves as wholesaler to one or two water purveyors	New public utility formed to handle water production and purveyor functions or FORA functions as water wholesaler producing and supplying water to a number of local purveyors (with a sunset clause)	FORA produces and purveys water supply or FORA solicits bids from all interested parties and awards water supply and purveyor function to entity which offers best deal
Source of Future Water Supply (Beyond supply by well or from SVWTP source)	*Although desalination of seawater has been identified as the most available source to meet ultimate water requirements, all other optional sources such as reclaimed water, storm water, and imported water will also be considered.*			
Quantification of Available Water Supply	5200 ac. ft./yr. Reduced by reason of pending adjudication and/or well permit insecurity	6600 ac. ft./yr. Based on Agreement No. A - 06404 between MCWRA and the United States of America	7000 ac. ft./yr. Based on Agreement No. A - 06404 and the conversion of the "golf course" well to potable supply	7900 ac. ft./yr. Based on Agreement No. A - 06404 plus golf course well conversion plus possible supply from other agencies
	Although supply figures vary in discussion from 5200 to 7900 ac. ft./yr., a common assumption of 6600 ac. ft./yr. is accepted by FORA.			

Water-Related Issue	← RANGE OF OPTIONS →			
Allocation of 6600 ac. ft./yr. of "Army-owned" Ground Water Supply from the Salinas Valley Water Basin	Historic use within local government jurisdictions without regard to future reuse plan	Apply prorata reduction to all reuse plan land uses so that total demand does not exceed 6600 ac. ft./yr.	Serve priority parcels determined by FORA board	First come/first served
	(An extensive Discussion of Allocation Alternatives is presented in section 3.5.6.5) Allocation becomes a non-issue if water rates are set to generate a financing fund for desal plant construction by the time the new water supply is needed.			
Financing of Water Supply and Treatment Upgrades	Depend upon grants or bond Issuance	Charge users at a prorata price which exceeds production costs so as to generate funds for expansion. Ramp-up rates for future supply funding based on demand trigger.	Select a justifiable combination of wholesale and purveyor rates which will match the rates of other water companies and retain the income for expansion and/or desal plant financing	Establish the cost of producing desalinated water and set water rates at this level. Use excess income in early years to create financing fund for desal plant
	The common assumption is that the entity which controls the water supply has the obligation to fund the cost of expanding that supply in order to fully serve the FORA Reuse Plan.			
New Operational Concepts	Water Users Reps (Universities, Purveyors, Army) function as Board of Water Commissioners under FORA to make all water decisions	Water consortium formed by users to accept water system transfer from FORA and to be responsi-ble for capital improvements and service contracts	Joint Powers Agency created through which all FORA members participate in income generated from water revenues	Non Profit Corporation created in which FORA members can invest in order to earn shareholder returns

3.5.6.4 Wholesale/Retail Responsibilities

As covered in the Options Matrix presented in Section 3.6.6.3, the organization of future water supply operations at Fort Ord can vary from a) single utility which controls the available water supply and then provides all production and purveyor services to b) a multiplicity of purveyors who obtain water from a central source and then distribute that supply to individual customers within the service areas. The FORIS Report contains the recommendation that a single agency should be responsible for owning and operating the water supply facilities and that a limited number of water purveyors be designated to distribute water to individual customers. The expressed logic behind this recommendation is as follows:

1. The point-source nature of the water supply facilities - i.e., concentrated well fields or defined imported water connection or single desalination facility - argues for a solely responsible supply agency which will also insure a long term base-wide financing program to secure additional water supplies.

2. The limiting of the number of purveyors is based on the economic realities that the delivery systems costs increase along with the number of purveyors due primarily to storage and connections redundancy.

With respect to the water policy implications of FORA's role as either potable water wholesaler, or as receiver of the water supply/distribution system for transfer to a water purveyor, the analytical groundwork has been completed in the FORIS Report. In fact, the first action plan which came from the FORIS process proposed the concept that all reuse activities at Fort Ord should pay a water bill reflecting desalinated water cost. FORIS also suggests that water wholesaled to local purveyor (or purveyors) for distribution to individual customers is the proper sequence of water supply operations.

The rationale for FORA'S water role is based upon the following factors:

1. The current potable well water sources, Wells 29 though 32, are concentrated in a discrete geographic sector of the Base.

2. The Army's contract which authorizes pumping of up to 6600 ac.ft./yr. from Zone 2-2A of the Monterey County Water Resources Agency (MCWRA) is expected to be transferred to one entity via a public benefit conveyance.

3. Future water supply sources either to replace the existing well supply or to provide "new" water sources are also expected to be "point" sourced rather than dispersed source and thus are compatible with a single wholesale entity delivering to local purveyors the consolidated water supply.

4. In the case of the "new" water supplies which will have to be planned for, permitted, and constructed over the next 15 to 20 years, a single responsible agency to finance and implement a consistent water resources program is essential. Both singularity of purpose and full potential for financing of the future water supply facilities are important attributes which define the water wholesaler role. In effect, water system improvements are transferred from real estate based financing to rate based financing which, in turn, makes development more feasible.

5. By maintaining control over such an important aspect of water utility as the source and cost of treated water, FORA can significantly influence the water rates which are charged by purveyor(s) as well as water consumption practices within their service areas.

3.5.6.5 Economic Analysis

(Independently Prepared by Richard Milbrodt of Budget Administrative Counseling, Sacramento, Ca.)

This section deals with analysis of the possible management of the water sewer program and how the operation and capital needs can be financed. Financing is keyed to use. Water system capital and operating costs are paid from water sales, connections to the system and water meters rental. Capital costs are separated between repair/replacement of existing facilities and new construction with financing from sinking funds or by debt issuance secured by water sales revenue. The cost of operation is paid from water sales.

Objectives of the water system financing plan are: to maintain competitive water tariffs with local agencies; to develop an equitable system for all users; to provide economic incentives for land development; and to secure a stable revenue source for FORA administration, of the water supply aspects of the program. Three alternative financing plans are presented. One is a preferred plan. The text explains each plan and accompanying tables illustrate application of the alternative financing schemes.

The financing plan has four basic objectives:

1) Integration of utility service and implementation of base re-use plan with participation by land use entities.

2) Minimizes FORA risk.

3) Provides economically viable development opportunity.

4) Maximizes FORA income for future needs.

Assumptions

The assumptions used in preparing this economic analysis are as follows:

- Water meters can be charged to users on a standby basis.
- All existing and future users can be charged a connection fee.
- No federal/state assistance is available for capital needs.
- Maximum annual water loss will not exceed 560 acre feet.
- One-half of current water system facilities can be maintained through an annual reserve of 1% of estimated system cost set aside for that purpose.
- One-half of current water system will be replaced through upgrades.
- Both system upgrade and new construction will be undertaken concurrently. Phasing of these capital improvements without concurrent management will reduce expenditures and increase revenues.
- Cost estimates provided by the Public Facilities Implementation Plan are current and appropriate to this analysis.
- Distribution of water is a responsibility of purveyor(s).
- Seasonal fluctuations in water demand will not distort an annual average rate of use.
- Water conservation practices will not materially reduce estimates of water demand for the system, since demand will exceed supply by 2015.
- Investments of cash balanced by FORA will earn an average rate of return of 4% per annum.
- Public agencies served will not be entitled to either payments in lieu of property taxes or franchise fees from system earnings.
- Rates charged for reused water are not part of this study.
- POM water sales will be reduced from the basic schedule

All plans presented use 1995 dollars. It is anticipated that system managers will establish an annual cost adjustment review process using the Engineering News Record or similar index and that the water sales rate schedule will be adjusted to keep pace with the cost adjustments. In all plans, the maximum water rates charged are consistent with the rates in effect as of May 1, 1995 for the nearest available private utility competitor (Cal-Am Water Co.).

Financing Plan A (Uniform Financing Plan)

The distinguishing characteristics of this plan are; relatively uniform revenue base throughout the full 20 year period; all forms of revenue utilized at the start and continue at the same level except for cost index changes. These revenue sources include: water meter rental, water sales, connection fees, interest earnings on balances available, state/federal assistance.

This plan distributes all costs of the water system to four revenue sources: water sales, connection fees, meter rentals and interest earned on available balances. Capital improvements are separated between restoration and replacement (R & R) of existing facilities; new construction facilities and

future construction of the desalination plant. The latter plant is financed from the proceeds of a sinking fund. R & R and new construction costs are apportioned equally between debt issuance (50% of system improvements) and reserve funds set aside annually (50% of system improvements). After an interim period, higher rates go into effect in 2001 to start a sinking fund for future major facilities.

Both wholesale and retail water rate schedules generally match the existing rate tariffs of the nearest available private utility and will finance obligations of FORA and the costs separate purveyors distributing water.

A contingency reserve has been established for the operation and administration of the water system. Interest has been estimated from available balances including this contingency fund which will not be required in all years. Because the projected finances depend heavily upon estimated water consumption, it has been deemed necessary to allow for seasonal fluctuations in actual use arising from either conservation practices, weather conditions or both. This adjustment to the total estimated available operating revenue provides a further protection against unplanned contingency events.

The water sales by FORA are priced at $1.44 per cubic foot for the first 800 feet of use and $1.50 per cubic foot over the minimum. The computation of water sales for the purveyors are estimated at $0.25 per cubic foot for the first 800 feet of use and $0.64 thereafter.

Meter rent is $20/month; connection fees are $2,000. Cash flow needed to start up period can be furnished through short term borrowing using future revenues to repay debt. Capital value in water system will provide security for the borrowing . A contingency reserve has been provided to meet such unknown requirements as equipment, vehicles, space rental and other need for operations that may not be available from the U.S. Army transfer. The Table shown for Plan A begins with the year 2001 because the interim period is deemed as start up years and allows for gradual build up of new connections and services. A summary of the start up water supply/production budget requirements follows:

Function	1996	1997	1998	1999	2000
Salaries	$205(000)	$216(000)	$251(000)	$261(000)	$268(000)
Svs/Supp	100	105	110	115	134
Cont.	25	30	33	35	38
Total	$330	$351	$394	$310	$440

Staffing would begin with 6.5 positions increasing to 7.5 at start of 2001 budget.

Table PFIP 3-9
Water System Financing Plan Summary
Plan A

	2001	2005	2014
REVENUE			
Water Sales - Level 1	1,377,648	2,503,296	3,756,960
Connection Fees	290,000	290,000	290,000
Meter Rent	435,000	1,044,000	1,680,000
Interest	1,408	2,816	4,224
	2,104,056	3,840,112	5,731,184
EXPENDITURES			
Debt Retirement	432,000	919,559	1,459,084
Operation Costs	352,000	704,000	1,056,000
Administration Costs	52,800	105,000	158,400
RESERVES			
R & R	500,000	500,000	500,000
Operations	35,200	70,400	105,600
Desal Plant	435,000	1,044,000	1,100,000
Agency Payments	250,000	300,000	500,000
Adjustment/fluctuations in water use	47,056	197,153	852,100
	2,104,056	**3,840,112**	**5,731,184**

Desal plant (Phase I) fully funded in 2012; Phase II funding in 2014. Estimated cost of construction of a desalination plant is $12.5 million.

Financing Plan B (Deferred Improvement Plan)

The distinguishing characteristic of this plan is a deferred start on reserving funds for capital improvements which results in a low start-up revenue structure. Debt management is postponed until a date determined by the FORA Board. Meter rentals are charged only for one year (start-up year and dropped until needed at a later time. The first year income can be used to supplement water sales revenues and provide cash flow to lessen short term borrowing and help fund start-up costs.

This alternative is based upon several policy decisions regarding capital improvements:

1) That the desal plant will be financed from debt issued at a later time period, perhaps not until start of construction in 2012;
2) That the construction of new facilities will require debt issued following the establishment of water operations and the retirement of that debt will be from income other than water sales. This would mean grants, connection fees and meter rental income (the latter is needed only for the start up year).

As with Plan A, the water rate schedule is competitive with the nearest available private utility. The major difference being a more favorable allocation of the water rates between FORA, as wholesaler, and the retailing agencies. Plan B offers an allocation of 50% of water sales revenue to the wholesaler and the retailer.

Allocating future capital costs to revenue sources other than water sales has the advantage of avoiding shortfall in debt redemption because of declines in water consumption. It does, however, impose major costs at the front end of construction because connection and development fees have to be levied at an amount that will reduce debt payments. For example, under this alternative, the connection fee in start up years would be $8,500 with annual escalation thereafter. Meter rental would start at $20 per month and increase to an estimated $45 per month.

FORA operating costs are fully funded under this plan from the revenue earned on sale of water. An adjustment for possible fluctuation in actual water use from projected demand has also been established in this plan.

Water rates are established for the sale of water by FORA at a rate of $1.20 per 100 cubic foot for the first 800 feet and $1.00 per foot thereafter. Water rates for purveyors are computed at $0.49 per 100 feet for the first 800 feet and $0.69 per 100 feet thereafter.

Table PFIP 3-10
Water System Financing Plan Summary
Plan B

	1996	2005	2014
REVENUE			
Water Sales - Level 1	951,840	1,735,680	2,596,800
Meter Rent	261,000	-	-
Interest	1,408	2,816	4,224
	1,214,248	1,738,496	2,601,024
EXPENDITURES			
Operation Costs	352,000	704,000	1,056,000
Administration Costs	52,800	105,000	158,400
RESERVES			
R & R	500,000	500,000	500,000
Operations	35,200	70,400	105,600
Total Reserves	535,200	570,400	605,600
Agency Costs	250,000	300,000	500,000
Adjustment/fluctuations in water use	24,248	59,096	281,024
	1,214,248	**1,738,496**	**2,601,024**

FINANCING PLAN C (Staged Plan)

The distinguishing characteristic of the plan is that the future desal plant is only funded in part through annual contributions to a sinking fund and other major capital improvements are deferred until future years.

This plan attempts to offer a compromise financing between Plan A and Plan B. Under this concept the capital improvement costs are partly funded by a sinking fund established annually from water sales and partly funded by a future debt issue. Meter rentals and connection fees supplement a proportionate share of debt retirement that is paid from water sales revenue. The primary advantage of this concept is to lower debt costs in the early, start-up years and defer major capital improvements to a point where development has been relatively well in place and the market can absorb higher costs.

FORA administrative expenses are fully paid with this plan as is the cost of R & R for current system improvements. Approximately $19.81 million of capital construction cost is financed from connection fee revenues ($11.33 million) and water sales and meter rentals ($8.48 million).

The estimated cost of water sales by FORA is $1.20 per 100 cubic feet for the first 800 feet and $1.45 per 100 feet thereafter. The estimated water sales by purveyors is $0.49 per 100 feet for the first 800 feet and $0.69 per 100 feet thereafter.

Table PFIP 3-11
Water System Financing Plan Summary
Plan C

	1996	2005	2014
REVENUE			
Water Sales - Level 1	1,305,000	2,366,400	3,558,000
Meter Rent	348,000	696,000	960,000
Interest	1,408	2,816	4,224
	1,654,408	3,065,216	4,522,224
EXPENDITURES			
Debt Retirement	432,000	919,559	1,459,084
Operation Costs	352,000	704,000	1,056,000
Administration Costs	500,000	105,000	158,400
RESERVES			
R & R Reserve	52,800	500,000	500,000
Operations	35,200	70,400	105,600
Total Reserves			
Agency Costs	250,000	300,000	500,000
Adjustment/fluctuations in water use	24,248	466,257	743,140
	1,654,408	**3,065,216**	**4,522,224**

Desal plant would be 40% funded by connection fees sinking fund and would require a bond issue for the remaining costs.

Major Distinction between Financing Plans

This subsection summarizes the major differences between the three alternative financing plans presented in this section.

Plan A - Uniform Financing Plan:

- Desal plant fully funded with annual increments set aside for meter rental revenues.
- Water sales & connection fees to pay all other costs with uniformity over planning period.
- Water sales price is $1.44/1st 800 cft; $1.50 per 100 cft thereafter.

Plan B - Deferred Improvement Plan:

- Desal plant not funded with annual increments, must be funded by borrowing.
- Meter rent used first year only for cash flow; then dropped to re-start when capital plan implemented.
- Connection fees postponed until 2012 when desal plan financing undertaken.
- Water sales price is \$1.20/1st 800 cft; \$1.00 per 100 cft thereafter.
- Using recommended cap on water rates, distribution share to retailer highest of the three plans because capital improvements are deferred using bonds issued at a later time and spread over longer term.

Plan C - Staged Plan:

- Desal plant is 40% funded from revenues; remainder financed by debt insurance at a later time.
- Connection fees excluded from plan until desal plant financing established.
- Entire program funded from water sales.
- Water sales price is \$1.20/1st 800 cft; \$1.45 per 100 cft thereafter.
- Capital improvement plan staged so that no debt is required for first three years; R&R program staged so the annual increments are not uniform but increase to meet planned work.

Preferred Water Financing Plan

Plan A as shown above is the preferred alternative among the three choices that are available. The reasons for this preference are as follows:

1) An economic incentive to proceed at an early date with development is created by the lower connection fees and related water system expenses prior to occupancy.
2) The tariffs for sale of water, both for wholesaler and retailer, offer a margin of safety for possible drops in water consumption while still being competitive with other water suppliers serving the area.
3) Capital costs are spread over water sales revenue and other revenues.
4) Construction of the desalination plant will be fully financed by the time that construction planning and development must take place.
5) No investment is required to capitalize the water system.
6) Replacement/repair of current system uniformly scheduled.
7) Avoids reliance on real estate based financing which improves opportunity for financing other infrastructure needs.
8) Capital available for system improvements as needed.
9) Provides management flexibility to deal with unforeseen future events through use of reserves for capital needs.
10) Provides opportunity to link wastewater improvement financing with water usage by including a fee for future capital costs with water service charges.

FORA Operating Revenues: Using the water system as a revenue source to finance FORA operations creates a distinct benefit to member agencies who would otherwise be required to contribute to funding for the same purpose. The analysis shows that over a period of time, the operating experience may result in added revenues from water sales that could be considered for added contribution to members and/or a reduction in water rates depending upon policy and legal considerations.

Risk Factors: The factor of risk in managing a water system is difficult to measure. Of course it is mandatory to continue without interrupting the delivery of water service. There would appear to be possibly three risk events that could occur: catastrophic, reliability and overly optimistic estimates of new connections and water consumption. The best insurance against these contingencies is Plan A which establishes larger reserve funds to hedge against unforeseen events. All the plans offer management scenarios. Rescheduling capital improvements would be required but this is manageable. In addition, state and federal assistance are usually available after catastrophic events. If the system needs reliability improvements before capital reserves are available, the need can be met with short term borrowing secured by future water sales revenues. If estimates for future new connections (and water use) are too high, then the need for capital improvements and R& R work is lessened and can b stretched out to lessen expenditures.

Summary

It is economically feasible to establish FORA as wholesaler of water to the Fort Ord service area or as a partnership with a selected water purveyor responsible for both supply and distribution. At the same time it is feasible to include wastewater financing with water system management. FORA can furnish water quantities required at a competitive price schedule. Purchasers of FORA supplied water can finance their costs within the same competitive pricing structure. Capital costs and operating costs can be fully financed under the preferred alternative from a combination of water sales, meter rentals, connection fees and miscellaneous income sources. A combination of long term indebtedness and pay as you go capital financing provides user equity and meets FORA objectives for implementation of reuse plans.

3.5.6.6 Allocation Alternatives

As previously reported FORA's consultants have contacted or received information from the following water agencies concerning allocation policies: Amador County Water Agency, El Dorado Irrigation District, Marina Coast Water District, Placer County Water Agency, Sacramento City and County, Tahoe Regional Planning Agency

A common lament concerning any allocation policy is as follows:

> *"Allocation of water supply results in a very bureaucratic system involving forms, procedures, scheduled application or review periods, political pressure, public meetings and, inevitably, appeals to change the allocation policy."*

It is a common view that any allocation system represents a major administrative burden to be avoided if at all possible and, if implemented, that an allocation system should also include a buy-in provision for water in reserve so as to insure that sufficient operative income is generated whether or not water is consumed.

Allocation Scenarios

The generic concepts which are seen as the basis of allocation system are those of historic use (essentially riparian rights); current use (appropriative rights) and/or future use (assigned rights). Water purveyors, in most cases, have no control over future use and thus resort to a first come-first served concept. If supply constraint occurs, due to drought as an example, then users are given a common water conservation goal as a percentage reduction of their then current use.

The attributes of using one or another of the use factors as a basis of water allocation can be summarized as follows:

Historic Use

- Depends upon quantifiable water use.
- Favors past land utilization.
- Minimizes system expansion cost.
- Matches water supply with previous land parcelization.

Current Use

- Utilizes current, meterable water records.
- Favors most recent land use and consumption patterns.
- Matches water supply with contemporary land parcels.
- Accommodates current market forces.

Future Use

- Reflects planned future activities over a new service area.
- Leads to equal protection of future consumers usually on a first come-first served basis.
- Substitutes projections reflecting water conservation and future land use policies for metered water consumption and current practices.
- Has little flexibility to accommodate yet unknown demands for water.

A specific allocation program for each of the concepts summarized above is described in subsequent sections of this report and quantified in the Allocation Table.

First Come-First Served

- There is one other generic approach to water allocation which deserves explanation. That is the "First Come - First Served" concept which in effect seeks to avoid a hard and fast allocation of water supplies on any basis except actual usage. As practiced by either public or private purveyors of water in most municipal venues, an adequate

availability of water is secured by means of advance planning for and ongoing financing of the future facilities require to meet projected water consumption requirements.

Under the First Come - First Served concept, it is the actual consumption of the water supply which, through prudent meter rates, generates the dollars necessary to expand capacity. When FORA's responsibility to implement a base reuse plan is considered in respect to this water supply concept, it seems evident that the flexibility to serve any and all reuse opportunities which comply with the Final Plan is a desirable goal. There is a built-in assumption that FORA will use the advantage of the currently available water supply to both accommodate reuse AND to fund future supply acquisitions costs.

In respect to the Historic, Current or Future Use Allocation concepts summarized above, it is proper to consider First Come - First Served as a part of each concept. If an allocation system is warranted in order to offer future certainty of supply for land use entities, it is also highly desirable to incorporate some flexibility to accommodate emerging market opportunities. To the extent that any allocation system incorporates such flexibility by including an unallocated reserve, then First Come - First Served applies to that reserve.

If the goal of maximizing flexibility to accommodate reuse is primary then no allocation program is needed and all potential water customers - (within the allowed Reuse Plan) are encouraged. Credibility as to the permanence of water availability in respect to a particular project is provided by means of a "Will Serve" letter. Such letters are commonly issued by water purveyors throughout California.

Alternatively, however, when selection of an allocation procedure is necessary to achieve local consensus on water supply availability, then some degree of the First Come - First Served concept should also be included so as to provide a measure of flexibility.

Assumptions

In preparing the water allocation scenarios, the following assumptions have been made:

In respect to All Scenarios;

- That the agreement between Monterey County Water Resources Agency and the Army for a potable water supply of 6,600 AFY remains valid.

In respect to Historic Use;

- That irrigation water for the existing golf courses was supplied primarily from the golf courses well in a amount up to 400+ AFY and was augmented from the potable water supply, to the extent of 230 AFY.
- That the 5,200 AFY of Historic Use represents the highest consumption level during the Army's tenure at Fort Ord.

In respect to Current and Future Uses;

- That Col. Mettee - McCuchon's correspondence of October 13, 1995 and November 9, 1995 establishes the Army's current water requirements at 1,729 AFY, including 10% for line loss, and 630 +/- AFY for golf course irrigation. When golf course irrigation is transferred to Seaside, the Army allocation is (1729 - 133 line loss - 230 potable water used for irrigation) =1366 AFY.
- That the infrastructure report prepared by Bestor Engineers for California State University, Monterey Bay establishes the CSUMB (25,000 FTES) build out water requirements at 2,510 AFY and that the CSUMB 2015 (12,5000 FTES) water requirements are 1,255 AFY or less.
- That the EDAW Summary Tables for Land Use at 2015 (December 4, 1995 version) prevails as the Final Reuse Plan.
- That reused water becomes available to augment the well water supplies.

Water Allocation on the Basis of Historic Use

In the case of Fort Ord, historic use assignable to each reuse polygon would be that of the previous water consumption by the Army. The Table PFIP 3-12 on the following page prepared by R.F. Ducoing* presents historic use by polygon and represent the best available information on historic water consumption. Interestingly, the historic military water consumption is reported as a maximize of 5,200 acre feet per year (AFY) which will allow 1,400 AFY of added future supply to be accommodated within the 6,600 AFY total supply provided in the Monterey County Water Resource Agency (MCWRA) agreement (or 1,825 AFY if the Golf Course Well supply is included). When the historic use by polygon data is transferred to land use jurisdiction the allocation shown in Column A of Allocation Table (found in Table PFIP 3-13).

In respect to Fort Ord and for reasons of simplicity, firm water allocation and, at the same, implementation of FORA's Base Reuse Plan, it appears that water allocation based on Historic Use could be implemented on the following basis.

A. Water allocation by polygon would conform to the Historic Water Use Table constructed by Mr. Ducoing. This allocation basis will encourage land utilization which is serveable via the existing water system. In addition, the principles of water conservation are followed since infilling under the Base Reuse Plan would be encouraged and would allow increased densities in respect to the historic water allocations.

* R.F. Ducoing is a previous member of Fort Ord's Directorate of Housing and Engineering civilian staff. Mr. Ducoing was in charge of the source allocationand energy conservation programs at Fort Ord.

Table PFIP 3-12

Historical Water Useage By Polygon
Source: RF Ducoing

POLYGON #	LAND USE	ACREAGE	ACRE/YR
1a	AIR	401.0	25
1b	HAB	137.9	0
1c	LI	283.4	0
1d	HAB	0.0	0
1e	HAB	36.2	0
1f	TECH	56.3	0
2a	RETAIL	87.9	10
2b	HR/CBUS	339.9	731
2c	TECH	107.1	14
2d	RETAIL/HR	61.3	10
2e	CORP	42.0	30
2f	TC	8.8	0
2g	EQC	34.7	10
3	UNIV-CC	19.9	107
4	LR	664.8	811
4a	SCHOOL	19.1	30
5a	RETAIL	47.5	0
5b	RETAIL	6.2	0
5c	HAB	11.0	0
6a	RC	9.8	6
6b	HAB	44.4	0
7a	USO	273.8	0
7b	URA	408.5	0
7c	USO	125.6	5
8a	LFRA	339.7	0
8b	USO	26.4	0
8c	TC	20.5	0
8d	UNIV CC	7.2	9
9a	URA	140.2	0
9b	USO	36.2	0
10	UNIV	430.3	488
10a	SCHOOL	12.9	0
11a	HAB	179.1	0
11b	AGRI	778.7	20
12a	CDZ	INC. 12b	0
TOTAL 12b	DHZ	875.0	0
13	AQ/MRE	45.8	2
14a	MUA/ATF	67.5	10
14b	SA	11.0	0
14c	DS	INC. 13	0
15	RETAIL	95.4	0
TOTAL 16	UNIV	921.2	520

POLYGON #	LAND USE	ACREAGE	ACRE/YR
17a	CPRK	51.9	0
17b	RV	424.7	20
18	.3 MR/.7 OP	125.4	120
19a	LI	756.9	0
19b	ARMY/MP	100.4	22
20a	MR/RH	177.6	260
20b	MR	95.8	140
20c	MR	267.3	0
20d	INST/MIIS	58.6	32
20e	OP	61.0	190
20f	SCHOOL	40.1	30
20g	HR	89.5	175
20h	ARMY	697.7	1025
20i	SCHOOL	15.1	30
20j	SCHOOL	10.7	30
20k	SCHOOL	15.9	30
21a	MR	127.3	0
21b	LI	390.7	0
21c	DEMO	8.9	0
22	GOLF	380.0	230*
23	RH	90.4	0
24	OP	129.7	0
TOTAL 25	NRMA	14372.8	0
26	POST	39.5	0
29a	OP	209.8	0
29b	CORP	93.5	0
29c	OP	30.2	0
29d	OP	24.7	0
29e	CPRK	24.8	0
30a	RAE	252.0	0
30b	RAE	193.0	0
30c	RAE	136.4	0
31a	NAE	15.0	0
31b	OP	17.7	0
32	SE	88.5	0
	Seaside HS		28
TOTAL AC		26827.7	5200

* ADDITONAL WATER SUPPLY FROM POTABLE SOURCES TO AUGMENT WELL PRODUCTION OF 400+/- AFY

B. The 1,400 AFY of water in excess of the 5,200 AFY Historic Allocation would be reserved for future or additional land uses by polygon on a First Come-First Served basis. A specific provision would be that current use must be proved up to the historic allocation before any additional supply could be requested for a polygon.

C. Since the Army's indication of requirements for the POM Annex and other federal activities essential utilizes historic information, there is no diminution of the 1,400 AFY supply for future land use proposals.

D. When available, reused water supplies would be substituted for Historic Allocations, with the replaced amount being added to the 1,400 AFY for future land uses outside the historic polygon usage.

E. At the point in time when the totality of potable water consumption within the Fort Ord boundary reaches 5,200 AFY, then all Historic Allocations by polygon would be reviewed with the holders of those allocations receiving the option of either purchasing the remaining water allocation above then current use or of reverting the unused allocation to the First Come-First Served supply.

F. As proposed previously by the FORA staff, a ramped-up water rate provision would be formalized on the following basis:

- From time of Army transfer of water supplies and system for an ensuing two (2) year period, water rates will reflect production and outage repair costs only. New users must provide individually meters but historic users have the option of master metering at their expense.
- After the two (2) year period described above, water rates will be increased by a factor necessary to cover repairs and upgrades/replacement costs as reported in the FORA CIP through 2015. This period of production cost plus repair and replacement (R&R) funding will be in effect for an additional two (2) years, and during this period all master-metered polygons would have meters installed on an individual building service basis.
- After the four (4) year period described above, water rates will be increase by a factor necessary to cover the then anticipated cost of producing additional water supplies to serve the first phase of supply expansion beyond the 7,025 AFY now associated with well water production. This water rate composed of production, R&R and future supply funding is expected to continue through June 30, 2014 at which time a new water rate would be established.

If accepted on the basis outlined above, the Historic Allocations would become permanent through the option of the polygon owner(s) at the point in time when the totality of Fort Ord potable water usage reaches 5,200 AFY. At that time, the owner(s) would have either established a then-current use at or above historic level, elected to protect the Historic Allocation by

reserving through purchase the difference between then-current and historic level, or relegated the Historic Allocation to a First Come-First Served basis. Ongoing administration of such a policy is minimized and the balancing of water allocation and use is undertaken at a defined point in the future when historic water consumption is duplicated by then-current use.

Water Allocation on the Basis of Current (First Come) Project

At this time there is vastly reduced water consumption on Fort Ord which reflects the gap between historic Army occupancy and still to come reuse activity. Consequently, a Current Use basis for water allocation must reflect the anticipation of water consumption to support those activities for which public agency commitment of support is evident (such as CSUMB) and/or where water availability is essential to the reutilization of an on-base asset (such as existing housing).

Column B in the Allocation Table summarizes a "judgment call" as to which of the reuse activities proposed for Fort Ord should be considered "Current" and thus assigned a water allocation. Clearly, FORA Board confirmation of such a judgment call will be necessary. For comparison purposes and to arrive at a water allocation total under the Current Projects scenario, the following activities are served:

- Continuing Federal Uses including:
  - POM Annex of 1,590 Housing Units and Commissary Operations plus Motor Pool for Maintenance
  - DFAS
  - Army Reserve and National Guard
  - Golf Course
- CSUMB to 50% buildout including 1,253 existing housing units.
- UC - MBEST for 2015 Use
- Marina Airport operations at historic level.
- County Warehouse, Library and Corporation Yard activities based on PBC claims.
- Marina Corporation Yard, Recreation Facilities and Equestrian Center uses based on PBC claims.
- Elementary, Middle and Seaside High School operations based on historic use, plus Headquarters.
- Monterey Peninsula College and Golden Gate University facilities in Marina.

- Monterey Peninsula College facilities in County (East Garrison) based on PBC claim.
- MST Headquarters.
- State Parks and Recreation activities in Coastal Zone.
- County Youth Camp operations based on historic use.
- Marina existing housing supply in Patton, Abrams and Preston Parks.
- Seaside existing housing supply in Stillwell, Hayes, Brostrom and Thorson Parks/Villages.
- Homeless Service Providers facilities not to include housing which is accounted for as existing housing supply.

These activities have an aggregate anticipated water use of 4,250 AFY which when expanded by 10% to account for line losses constitutes an allocation of 4,675 AFY thus providing an unallocated reserve of 1,925 AFY (or 2,325 AFY if the Golf Course Well is included). Clearly, the selection of activities which are sufficiently committed to justify water allocation at this time is subject to debate. If only two activities are so designated, specifically the Federal/Army uses and the 12,500 full time student level of development for CSUMB, then the resulting current allocation would be 3,110 AFY with a larger unallocated reserve of 3,490 AFY.

Implementation of a Current Water Allocation program would essentially duplicate the steps suggested in the previous discussion of an Historic Use Approach as follows:

A. Water allocation by jurisdiction would conform to Column B of the Allocation Table.

B. The remaining 1,925 AFY of water in excess of the 4,675 AFY current allocation would be reserved for future or additional land uses by polygon on a First Come- First Served basis.

C. Since the Army's indication of requirements for the POM Annex and other federal activities essential utilizes historic information, there is no diminution of the 1,925 AFY supply for future land use proposals.

D. When available, reused water supplies would be substituted for either current allocations or future water projections, with the replace amount being added to the 1,925 AFY for future land uses.

E. At the point in time when the totality of potable water consumption within the Fort Ord boundary reaches 5,000 AFY, then all current allocations would be reviewed with the holders of those allocations receiving the option of either purchasing the remaining water allocation above then current use or of reverting the unused allocation to the First Come-First Served supply.

F. The ramped up water rate provision would apply.

Water Allocation on the Basis of Future Land Use

The basis of allocation to serve future use is the EDAW Land Use Summary Tables of December 4, 1995. The resulting land uses encompass the projected market absorption by SKMG through the year 2015. When the water demand for the 2015 land utilization was then calculated by Reimer Associates, a fortunate outcome resulted as to water requirements. The 2015 requirement for potable water totaled 6602 AFY (including 10% for line losses as well as 20% for reserve when water conservation measures are implemented in residential areas) which essentially matches the currently available well supply. In addition, 2,300 AFY of reclaimed water for irrigation purposes would also be required to support the projected 2015 reuse activities.

When the water requirements by future land use are transferred to transportation analysis zones or to polygons and then distributed by land use jurisdiction, the water assignments shown in Column C of the Allocation Table are the result.

As is readily apparent, all 6,600 AFY of the Fort Ord potable water supply is allocated and a supply of reclaimed water for irrigation is also required by 2015. There is no unallocated reserve and, therefore, no flexibility to meet unforeseen market conditions. A logical response to this "over allocation" is to simply select an allocation horizon earlier than 2015. A ratio for such a purpose would be to scale back the allocation jurisdiction in Column C by 50 % (except for Army and CSUMB requirements) and call the resulting totals (5260 AFY) a 2005 Plan. This approach is reflected in Column C' of the Allocation Table.

Implementation of an allocation scenario based on future land use appears to require more frequent review and potential balancing of assigning water rights than do either of the allocation measures previously discussed. Such review is essential since no First Come - First Served reserve is created and there is little flexibility to match emerging market trends and land absorption. A potential "mid-range" implementation program is as follows:

A. Water allocation by land use jurisdiction would by 100% of the Column C allocations for Army and CSUMB as shown in the Allocation Table on page 11 and 50% of Column C for all other Land Use Jurisdictions thus totaling 6,000 AFY. This suggested allocation is shown in Column C'.

B. The 810 AFY in excess of the 5,790 AFY Future Use Allocation would be kept as a strategic reserve under control of the FORA Board and made available for special projects meeting stated reuse goals. As an example, provision for water to

serve the MBEST Center beyond a 2005 "mid-range" allocation so as to attract high-tech industry could fall in this category.

C. When available, reused or reclaimed water supplies would be substituted for potable water allocation with 50% of the replacement being retained by the affected land use jurisdiction and 50% added to FORA's Strategic Reserve.

D. A review of actual water consumption would be conducted by FORA in years 2000, 2005 and 2010 with appropriate allocation modification. Holders of allocations would have the option of either purchasing a remaining water allocation above the current use or reverting to the Strategic Reserve. At any review time, the FORA Board could elect to change the Strategic Reserve to a First Come - First Served category. Such a transfer might logically occur when plans and funding for additional water supplies are secure.

E. The ramped-up water rate concept previously discussed would apply to this allocation scenario as well.

If implemented on the basis outlined above, a maximum of independence would be afforded to each land use jurisdiction in directing water utilization within its boundaries. The stated goals for FORA's water allocation program, as articulated by the County and other jurisdictions, include those of preventing hoarding of water and of accommodating future market trends. Unfortunately the allocation scenario outlined above has little flexibility, and may lead to water distribution which does not match market reality. The consequence of conducting more frequent water usage reviews must be anticipated if the Future Use scenario is chosen.

Water Allocation on the Basis of First Come - First Served

Column D of the Water Allocation Tables reflects a set aside for Army and Seaside golf course irrigation requirements. All other uses would be served as the specific water requirements by project are defined. "Allocations" against the 6,600 AFY potable water supply would be based on "Will Serve" letters issued by FORA's designated water system operator based on building plans and with a maximum 2 year life until service was commenced. The operator would report to FORA annually on the status of outstanding "Will Serve" commitments.

A maximum of flexibility to meet market forces is evident in this scenario and, as the result, the water supply is kept in play to accommodate reuse activities in all jurisdictions. Reused water attractiveness would be market-based on the business premise that a cost difference in favor of reused water would encourage substitution for irrigation purposes.

Water Allocation on the Basis of Jurisdictional Acreage

During the course of Administrative Committee Review of the Water Allocation Alternatives, a fifth scenario was proposed by committee members. It is a combination of future use (based on buildout acreage in developable land and parks) plus current use for those activities now operating at Fort Ord. Column E in the Allocation Table reflects the approach summarized by the committee members. Column E' shows how a change in the development acreage allocation

number (from 02 AFY/Ac. to .4 AFY/Ac.) will allow the allocations suggested by the Jurisdictional Acreage scenario to closely match the request of CSUMB and MBEST.

Comparative Assessment of Allocation Scenarios

Finally, the attributes of each Allocation Alternatives have been brought together on individual exhibits which also display the allocation percentages for each land use jurisdiction. These sheets appear after the Water Allocation Table and are followed by a comparative assessment which suggests a quantification technique for rating the Alternatives in respect to water service goals.

As of the March 15, 1996 completion of this Public Facilities Implementation Plan, the FORA Board still has the allocation scenarios under consideration. However, a clear preference for a version of the Jurisdictional Acreage approach has emerged from the Board discussions to date.

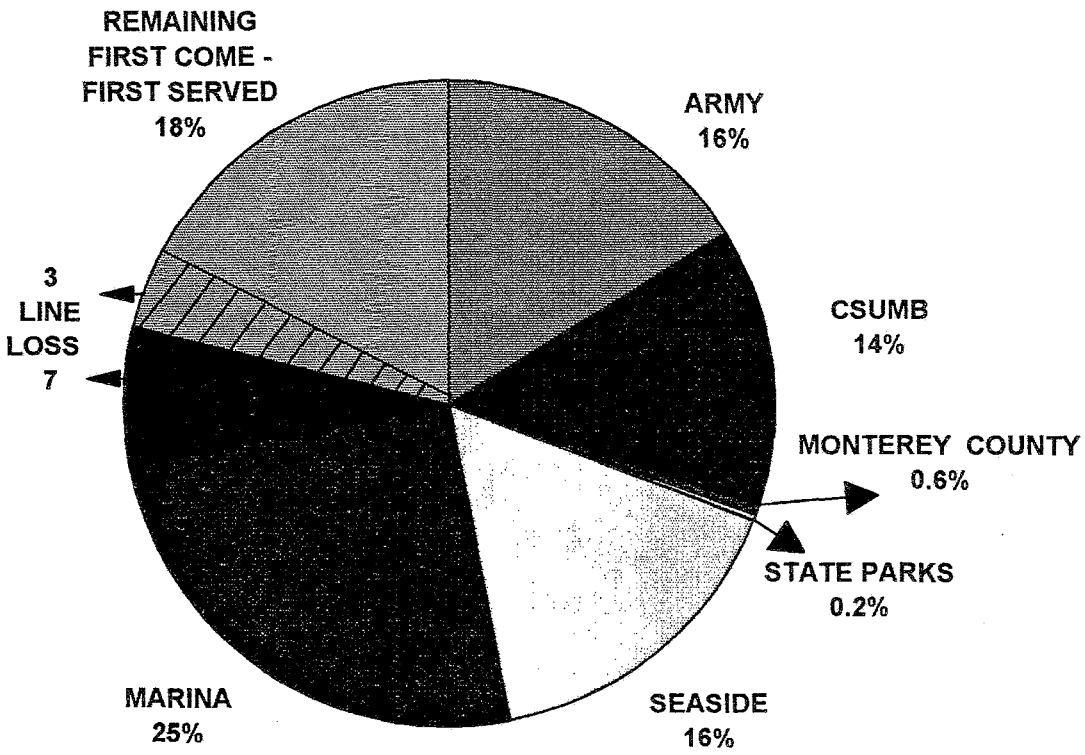
Water Allocation Table

The Water Allocation Table (Table PFIP 3-13) is found on the following page.

Table PFIP 3-13
WATER ALLOCATION TABLE
SUMMARY OF WATER ALLOCATION OPTIONS WATER ALLOTMENT IN (AFY) BY LAND USE JURISDICTION
(ALLOTMENTS EXCLUDE LINE LOSSES ESTIMATED AT 10%)

	Column A	Column B	Column C	Column C'	Column D	Column E				Column E'			
JURISDICTION	HISTORIC USE from Table A in Appendix A	CURRENT FIRST COME PROJECTS (ROUNDED)	FULL 2015 FUTURE USE (ROUNDED)	Future "Mid-Range 2005 Future Use (Except for Army & CSUMB (ROUNDED)	FIRST COME - FIRST SERVED USE	JURISDICTIONAL ACREAGE Devel. .2 AFY/Ac.	Parks .1 AFY/Ac.	+ CURRENT USE	TOTAL (Rounded)	JURISDICTIONAL ACREAGE Devel. .4 AFY/Ac.	Parks .1 AFY/Ac.	+ CURRENT USE	TOTAL (Rounded)
ARMY Assumes Golf Course Irrigation Transferred to Seaside after Column A	1065 AFY + Golf Co.Well	1365 AFY - Golf Co. Well	1365 AFY - Golf Co. Well	1365 AFY - Golf Co. Well	1365 AFY - Golf Co.Well	1365 AFY - Golf Co. Well		(965) AFY INCLUDED IN 1365 AFY	965 AFY	1365 - Golf Co. Well		(965) AFY INCLUDED IN 1365 AFY	965 AFY
CAL STATE UNIV. MONTEREY BAY	938 AFY	1255 AFY	1255 AFY	1255 AFY	~~2500 FTES~~ + ~~1253~~ D.U. 750 AFY and As Needed	262 AFY 1310 AC.	28 AFY	615 AFY	905 AFY	524 AFY	28 AFY	615 AFY	1160 AFY
UC MBEST	5 AFY	175 AFY	175 AFY	90 AFY	As Needed	87 AFY 434 AC.	7 AFY	0	95 AFY	174 AFY	7 AFY	0	180 AFY
COUNTY OF MONTEREY	36 AFY	50 AFY	910 AFY	455 AFY	As Needed	274 AFY 1372 AC.	13 AFY	35 AFY	320 AFY	548 AFY	13 AFY	35 AFY	595 AFY
COUNTY/STATE PARKS & REC.	11 AFY	50 AFY	50 AFY	25 AFY	As Needed	0	50 AFY DISTURBED AREA OF 500 +/- AC.	0	50 AFY	0	50 AFY	0	50 AFY
COUNTY/DEL REY OAKS ANNEX	0	0	400 AFY	200 AFY	As Needed	43 AFY 217 AC.	0	0	45 AFY	86 AFY	0	0	85 AFY
COUNTY/MONTEREY ANNEX	0	0	40 AFY	20 AFY	As Needed	36 AFY 180 AC.	3 AFY 26 AC.	0	40 AFY	72 AFY	3 AFY	0	75 AFY
COUNTY/MARINA SPHERE	0	0	30 AFY	15 AFY	As Needed	4 AFY	6 AFY	0	10 AFY	8 AFY	6 AFY	0	15 AFY
CITY OF SEASIDE	1040 AFY	920 AFY + GOLF CO. WELL	1945 AFY + GOLF CO. WELL	1085 AFY + GOLF CO. WELL	805 AFY and As Needed	263 AFY 1316 AC.	15 AFY 122 AC.	250 AFY	525 AFY	526 AFY	15 AFY	250 AFY	790 AFY
CITY OF MARINA	1630 AFY	835 AFY	2320 AFY	1150 AFY	25 AFY At Airport As Needed	322 AFY 1610 AC.	10 AFY 97 AC.	85 AFY	420 AFY	644 AFY	10 AFY	85 AFY	740 AFY
TOTAL EXCLUDING LINE LOSSES	4725 AFY W/Line loss - 5200 AFY	4250 AFY W/Line Loss - 4675 AFY	8090 AFY W/Line Loss - 8900 AFY	5260 AFY W/Line Loss - 5790 AFY	2545 AFY W/ Line Loss - 2800 AFY	2256 AFY	132 AFY	985 AFY	3,375 AFY W/Line Loss - 3710 AFY	3547 AFY	132 AFY	985 AFY	4,655 AFY W/ Line Loss - 5130 AFY
POTENTIAL RECLAIMED WATER REPLACEMENT	NOT INCLUDED	NOT INCLUDED	2300 AFY	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED				NOT INCLUDED			
FIRST COME - FIRST SERVED (WITH LINE LOSS / W/O RECL. WATER)	1400 AFY	1925 AFY	W/RECL. WATER NONE	810 AFY	3800 AFY	2890 AFY				1470 AFY			
ALLOCATION TOTAL	6600 AFY	6600 AFY	~~6600~~ AFY	6600 AFY	6600 AFY	6600 AFY				6600 AFY			

Figure PFIP 3-4
ALLOCATION BASED ON HISTORIC USE



ASSUMPTIONS:

Based on R.F Ducoing analysis of 5200 AFY of Army water use.

POSITIVE FACTORS:

- **Based on quantifiable water use.**
- **Assigns water to areas previously served thus minimizes system expansion.**

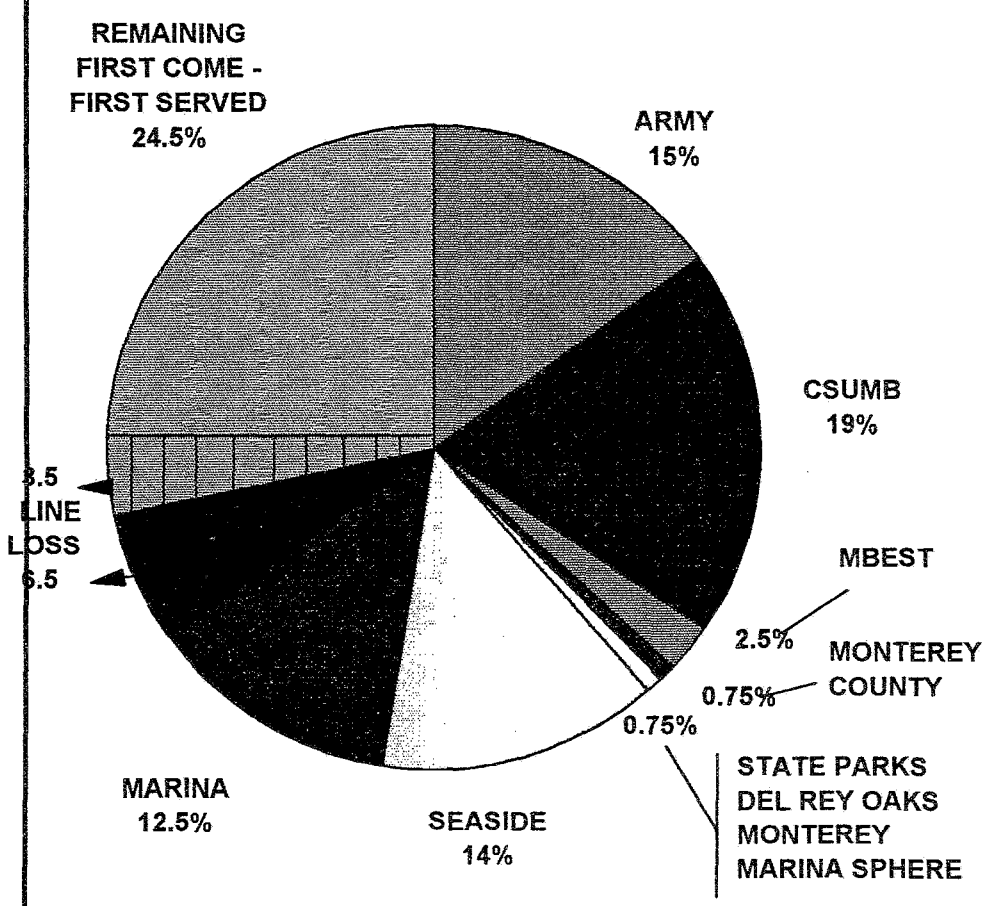
JURISDICTIONAL FACTORS:

- **Allocates water to polygons thus minimizes jurisdictional control.**

NEGATIVE FACTORS:

- **Requires constant monitoring of water use by polygon.**
- **Has flexibility to accommodate changing market.**
- **Allows early hoarding.**

Figure PFIP 3-5
ALLOCATION BASED ON CURRENT FIRST COME PROJECTS



ASSUMPTIONS:

Assigns water to 15 categories of users who have announced plans for specific project as of January 1996.

POSITIVE FACTORS:

- **Based on meterable water records.**
- **Reduces hoarding potential as long as projects proceed as planned.**
- **Maintains reasonable flexibility to accommodate changing market.**
- **Serves public benefit transferees.**

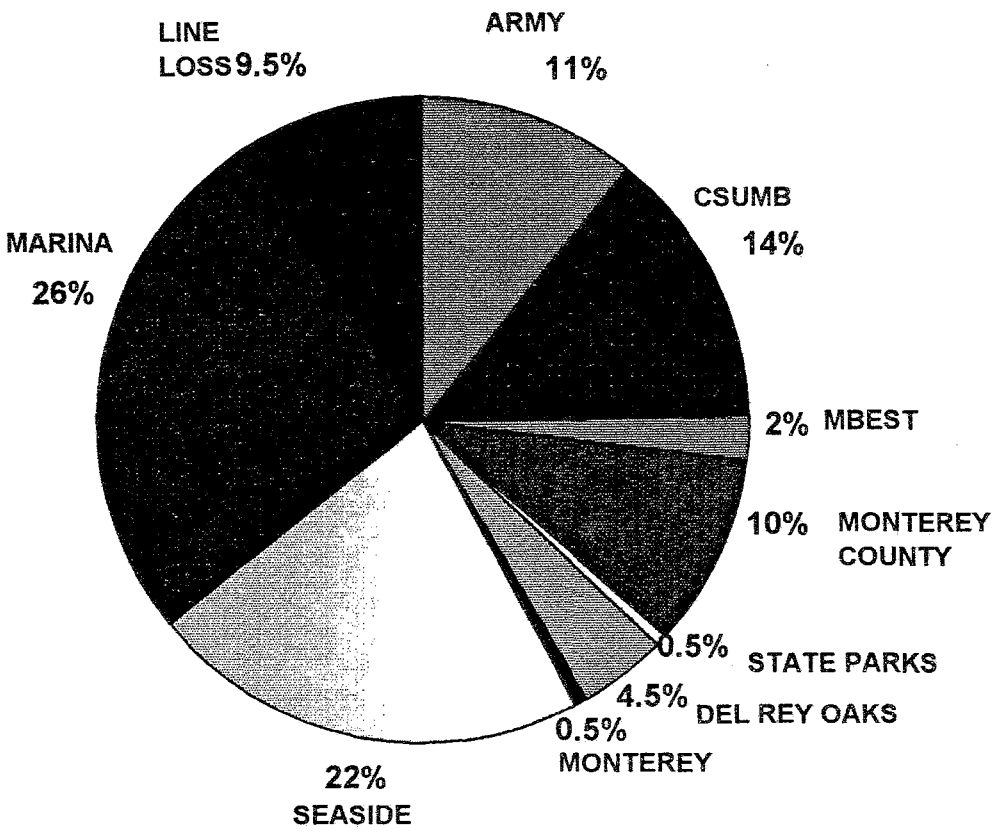
JURISDICTIONAL FACTORS:

- **Assigns water to specific uses, not to jurisdictions.**

NEGATIVE FACTORS:

- **Depends on arbitrary designation of "flagship" projects.**

Figure PFIP 3-6
ALLOCATION BASED ON FULL 2015 FUTURE LAND USE



ASSUMPTIONS:

Depends upon 2015 development which matches the EDAW/EMC Reuse Plan.

POSITIVE FACTORS:

- **Serves public benefit transferees.**
- **Reflects planned future activity.**
- **Minimizes FORA administrative burden.**

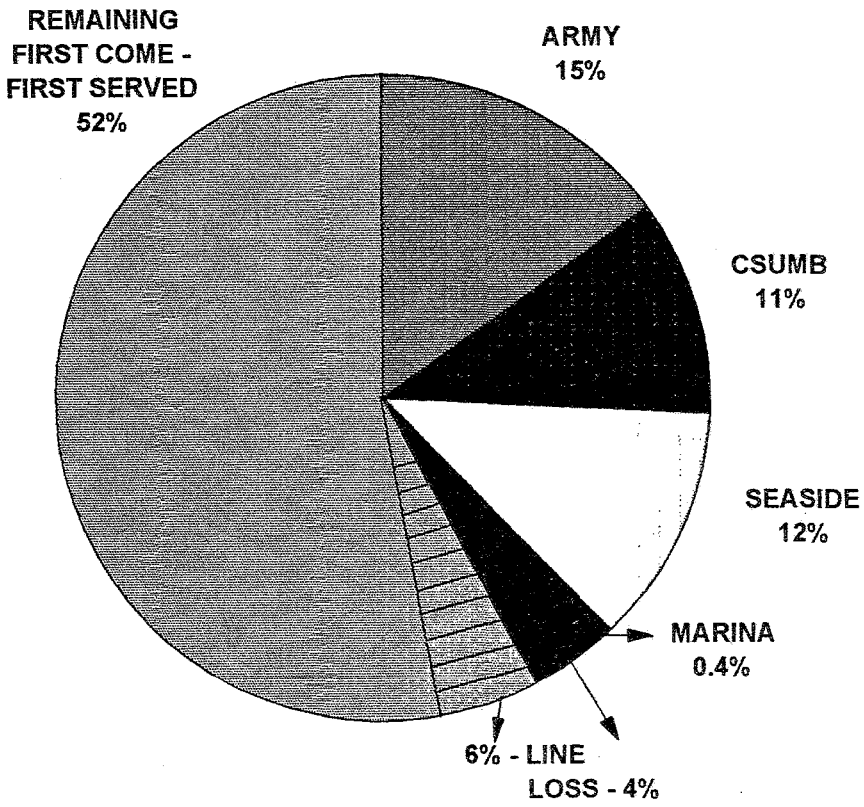
JURISDICTIONAL FACTORS:

- **Places control of water use in the hands of land use jurisdiction.**

NEGATIVE FACTORS:

- **Allows hoarding.**
- **Has no flexibility to accommodate future market trends.**
- **Over allocates supply since 2300 AFY of reused water is required to serve 2015 plan.**

Figure PFIP 3-7
WATER ALLOCATION BASED ON FIRST COME - FIRST SERVED



ASSUMPTIONS:

Army Allocation, Golf Courses on Fort Ord, CSUMB First Increment, Sunbay Terrace Brostrom Village, and Marina Airport are included as already in use.

POSITIVE FACTORS:

- **Prevents hoarding**
- **Maximizes flexibility to serve market variations factors.**
- **Minimizes administrative burden.**
- **Intended to insure unconstrined water resource availability.**
- **Serves public benefit transferees.**

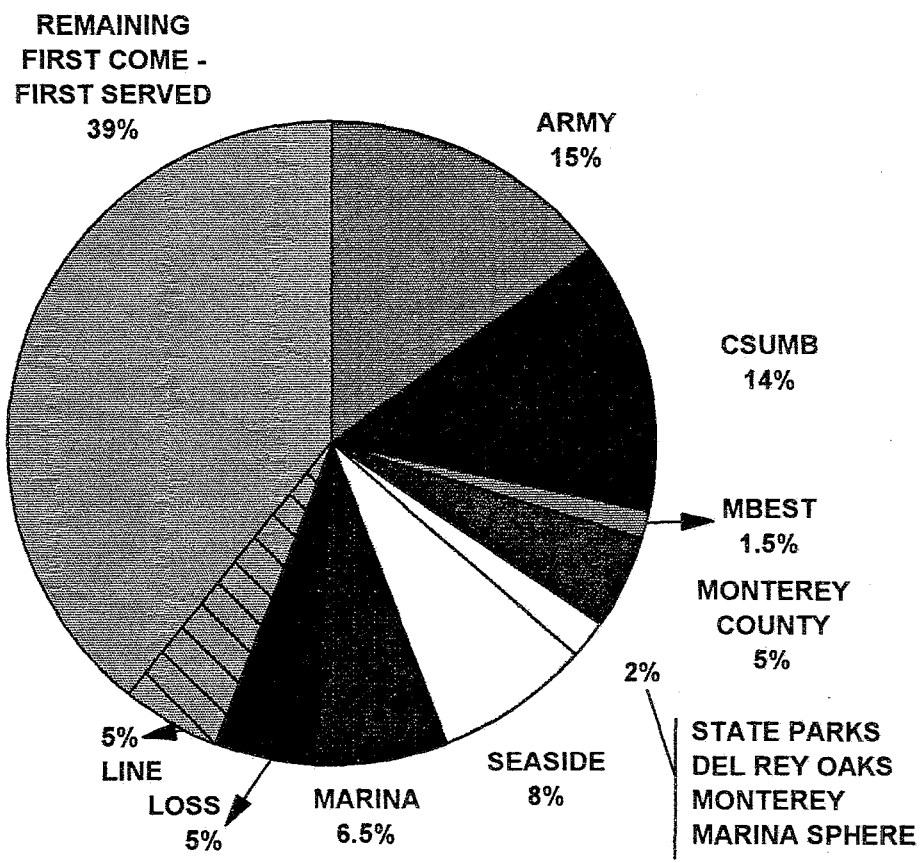
JURISDICTIONAL FACTORS:

- **Since water budgeting is based on actual usage, there is no allocation to individual jurisdictions.**

NEGATIVE FACTORS:

- **Does not provide "in advance" allocations to projects requiring long term buildout committments.**

Figure PFIP 3-8
WATER ALLOCATION BASED ON JURISDICTIONAL ACREAGE



ASSUMPTIONS:

Development acreages are from the EDAW land use spread sheets. Golf courses are included as development acreage.

Parks acreage receive .1 AFY/Ac.

Development acreage receives .2 AFY/Ac.

POSITIVE FACTORS:

- Prevents hoarding.
- Good flexibility to serve market variations.
- Reasonable administrative burden.
- Good balance between allocations for start-up and future flexibility.

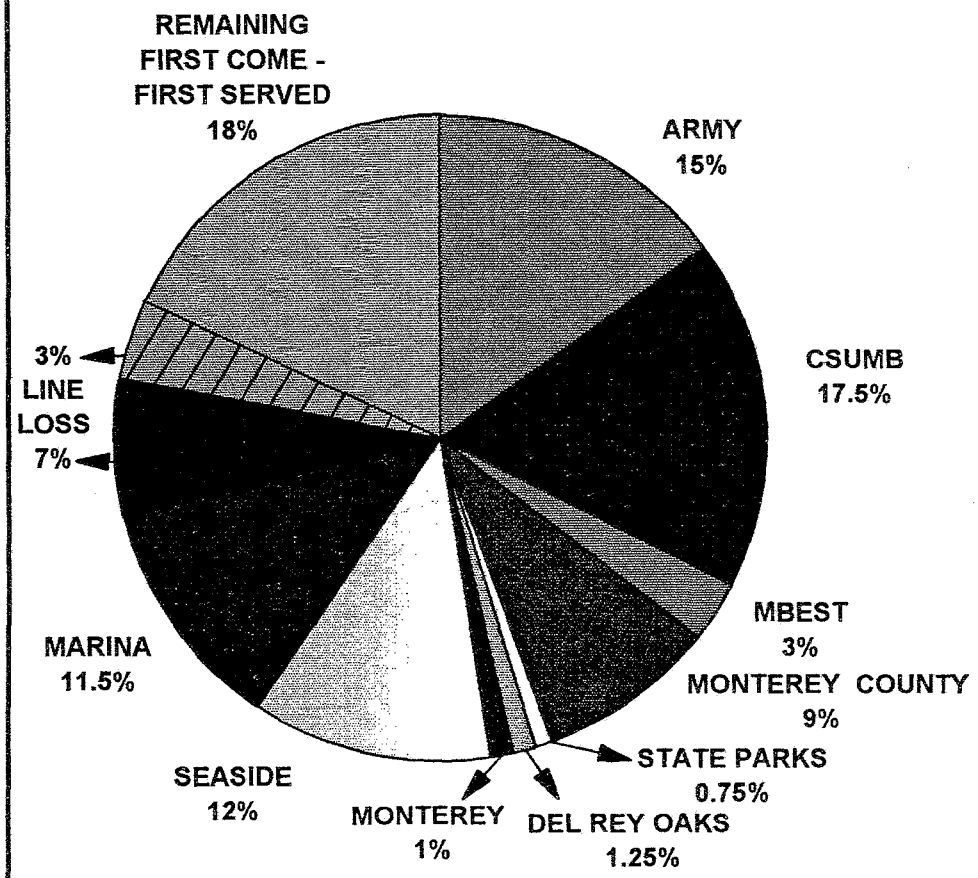
JURISDICTIONAL FACTORS:

- Allocations made to each land use jurisdiction.

NEGATIVE FACTORS:

- Does not totally fulfill CSUMB and MBEST allocation requests.

Figure PFIP 3-9
WATER ALLOCATION BASED ON JURISDICTIONAL ACREAGE WITH MODIFIED AFY/Ac.



ASSUMPTIONS:

Development acreages are from the EDAW land use spread sheets. Golf courses are included as development acreage.
Parks acreage receives .1 AFY/Ac.
Development acreage receives .4 AFY/Ac.

POSITIVE FACTORS:

- Fulfills CSUMB and MBEST requests.
- Reduced administrative burden.
- Aids start up while still providing some flexibility.

JURISDICTIONAL FACTORS:

- Allocations made to each land use jurisdiction.

NEGATIVE FACTORS:

- Reduced ability to accommodate market trends.

Table PFIP 3-14

COMPARTIVE ASSESSMENT TABLE
ALLOCATION SCENARIOS
IN RESPECT TO WATER SERVICE GOAL ASSUMPTIONS

ASSUMPTIONS / SCENARIO	MEETS CSUMB AND MBEST NEEDS	SERVES "FLAGSHIP" USERS	PREVENTS HOARDING	FLEXIBILITY TO MEET MARKET	MAXIMIZES JURISDICTIONAL CONTROL	MINIMIZES ADMIN. BURDEN	SCORE
Historic Use	0	0	2	2	0	2	6
Current Use	5	4	3	3	0	3	18
Future 2015 Use	5	5	0	0	5	1	16
First Come-First Served	1	5	5	5	0	5	21
Jurisdictional Acreage .2 AFY Per Development Acre	2	2	4	4	5	4	21
Jurisdictional Acreage .4 AFY Per Development Acre	5	4	2	2	5	4	22

SCALE	DOES NOT MEET GOAL		PARTIALLY MEETS GOAL		FULLY MEETS GOAL	
	0	1	2	3	4	5

3.5.6.7 Conveyance of the Water (and Wastewater) System(s) at Fort Ord

Base closure property is subject to all disposal procedures in the Federal Property and Administrative Service Act of 1949 (Property Act) including the supervisory role of the House Government Operations Committee and its Senate counterpart. As applied to BRAC rounds II, III and upcoming IV, the GSA Administrator delegates his disposal responsibilities under the Property Act to the Secretary of Defense who, in turn, re-delegates this disposal role to the DoD components.

Under the Property Act, base closure facilities must first be "screened" within DoD for other military uses and then with other Federal agency users for their own agency purposes. Properties no longer needed within DoD are considered "excess". Subsequently, properties not needed in turn by the Federal agencies are declared "surplus".

Public Benefit Conveyance

One of the helpful features of the Property Act, and other similar Acts, is the opportunity for communities to acquire surplus base closure property for a broad range of public purposes, without cost or at significant public benefit conveyance discounts.

In fact, it is useful for the communities to weigh how the public benefit conveyances might be applied effectively in creating an overall local "least-cost" base reuse plan. Public benefit conveyance authorities should be one of the influences, but should not dominate good land use planning or supplant strong market influences. The major public benefit conveyance authorities can be summarized as follows:

- *Education:* The U.S. Department of Education can convey land and facilities to public and private non-profit educational institutions on a discounted basis over thirty years. The educational entity actually fulfills its obligation to the Federal Government for the property at the rate of three and on-third percent annually through constructive educational use. Title to the property (and to public health property) conveys up-front, subject to educational use restrictions and a reverter or "buy-out provisions". There are now over 124,000 students attending four-year colleges or post-secondary vocational schools at 36 former bases across the country which were closed during the 1960s and 1970s.

- *Streets, Roads and Rights of Way:* Existing roadways on military bases can be transferred to the communities through the Federal Highway Administration by way of the Federal Transportation Improvement Plan (FTIP). Rights of way for future roadways and rail or transit routes can also be conveyed in the same manner.

- *Public Health:* Former military hospitals, dental clinics and health-related facilities can be transferred to the communities through the Department of Health and Human Services (HHS). Full ownership to public health facilities is also earned by constructive use of the facilities over a 30-year period, similar to educational property. Title to the base sanitary sewer and water systems can also be transferred through HHS.

- *Public Airports:* With the endorsement of the Federal Aviation Administration, the airfield and aviation support facilities can be transferred for public airport purposes. The airport area can also include industrial and commercial activities that will lease facilities on the airport property, thereby providing a long-term revenue stream to support aviation activities. An aviation conveyance requires a FAA-certified Airport Master Plan, which includes a detailed business plan for the airport.
- *Park, Recreation & Wildlife Conservation: Open* space, swimming pools, ball fields, and gyms, etc. as well as conservation areas can all be transferred in perpetuity through the Department of the Interior.
- *Public Safety:* Correctional facilities can also be transferred without cost as a public benefit conveyance.
- *Historic Preservation:* Historic landmarks and monuments can be conveyed without cost through the National Park Service, including facilities for commercial and residential use, provided the facades are retained.

Economic Development

In accordance with the key "Pryor Amendment" to the 1994 DoD Authorization Act, DoD is now authorized to convey base closure property for economic development and job-creation purposes "at or below fair market value" or even "for no consideration".

The DoD Interim Final Rules require priority use of the public benefit conveyance authorities in the Property Act rather than an Economic Development Conveyance (EDC). The general rule is to include those land uses which are "certain" in the public sense as public benefit conveyances (PBCs). The "certainty" of the public health requirement for water and sewer systems to serve the land scheduled for reuse becomes the basis for the propriety of a formal Public Benefit Conveyance with the Department of Health and Human Services as the sponsor.

It should be noted that there are certain stipulations in the PBC regulations that will need to be addressed should FORA, as the eligible Loral Reuse Authority (LRA), begin negotiations intending conveyance under a PBC. Examples of such regulations include the requisite 30 year "constructive use" period, and that "operators" of systems are required to be public agencies and/or non-profit corporations.

Conveyance Options Available to FORA

Col. Rostkowski's letter to FORA (which can be found in Section 3.5.6 - Figure PFIP 3-3) refers to the Public Benefit and Economic Development Conveyance methods outlined above and also adds negotiated sale and/or a public bidding process as a third and fourth alternative for a transition procedure. A comparative matrix for these transfer means as prepared by FORA staff can be found on the following page. In addition, a set of 10 questions concerning the conveyance process was presented to the Army, Office of Economic Adjustment and Health and Human Services staff members with the following results.

Q1. Is Private Contracting allowed under a PBC?
A1. Limited contracting is possible but not ongoing regular maintenance and operations activities. HHS would object to changing these regulations to allow more private contracting.

Q2. Is a PBC a more assured (guaranteed) way to get water/sewer systems at no cost?
A2. Yes. Once in the PBC process, the recipient is generally assured of receiving it at no cost. In the past, HHS has discounted these systems 100% of the costs, 100% of the time. In discussing this issue the Army expressed serious reservations about transferring treatment plant capacity at no cost through a PBC.

Q3. If we start an EDC process, can we go back to PBC if we can't make EDC work?
A3. As long as property is a public use and surplus we could go back and use an EDC subject to Army agreement. Also, generally and EDC is not used if there is a more appropriate conveyance mechanism.

Q4. What are the conditions of a subsequent sale if a system is originally received under PBC?
A4. The governing Board approves a sale based on fair market value, subject to depreciation, and those proceeds are paid to the Army.

Q5. Does the Army have final say over HHS on a PBC?
A5. The Army determines if it is willing to have property transferred through PBC. Once in the PBC process, HHS controls the disposition.

Q6. Can FORA do PBC if a successor agency is selected now?
A6. This is a problem because FORA goes out of existence before the thirty year life of a public agency that is required as a condition to receive a PBC under HHS regulations.

Q7. What kinds of revenue sources can FORA get under PBC (how much)?
A7. There are fewer restrictions through an EDC process, however, once a system us conveyed to the new owner, be it through an EDC or PBC process, an agreement between FORA and the new owner can provide one time or ongoing revenues to FORA and its members.

Q8. Are there any other problems using a PBC?
A8. Yes, there could be restrictions place on any transfer of property by HHS that involves water plume contamination.

Q9. How long does it take to process PBC application?
A9. An average of 60 days and a maximum of six months - through HHS.

Q10. Under an EDC can we stage transfer of properties so a receiving agency doesn't receive all its property at one time?
A10. Yes, they can be negotiated as part of the EDC terms.

The FORA Board has considered separation of the wastewater collection system transfer means (for which a Public Benefit Conveyance Transfer has been recommended by FORA's Administrative Committee) from that of the water system. In addition, the Board approved distribution of Request for Qualifications (RFQ) to all interested entities both public and private who may qualify as a suitable "partner" with FORA in filling the role of water purveyor for reuse activities at Fort Ord. It its now anticipated that selection of the "partner" will be accomplished before the Conveyance Option is finally approved by the FORA Board.

Table PFIP 3-15
Comparison Matrix for Water and Sewer Transfer Means

	Factors for Decision	PBC	EDC	Negotiated Sale to Public Agency	Public Sale Private Company
A	Applicable to both water and sewer systems	Yes	Yes	Yes	Yes
B	Requires formal appraisal of systems	No (est. of value including -0-)	Yes FMV thru income approach	Yes	Yes
C	Congressional approval required	No, Dept. of Army	No, Dept. of Army	Yes	Yes
D	Up front funding required	No	No, but may facilitate transfer	Yes	Yes
E	Is private ownership prohibited?	No (but penalties)	No	Yes	No
F	Payback of EDA Grant funds spent	No	Yes (if sold to private company)	No	Yes
G	Is procedure complex?	Yes, e.g. change law	Yes -new type of negotiations	No	No
H	Requires separate negotiations for water & sewer	No	No	Yes	Yes
I	Allows FORA control of future rates	Yes	Yes, if public No, if private	No, unless side agreement	No, controlled by CPUC
J	Income stream to FORA - ongoing and one-time?	Yes	Yes	No	No
K	Will system costs be reflected in higher rates?	Yes	Yes	Yes	Yes
L	FORA has role in terms of disposition	Yes	Yes	No	No
M	Contract out operations without restrictions	No, generally prohibited	Yes	No	Yes
N	Allows control of capital improvements required for reuse plan	Yes	Yes	No	No

Summary - Basic difference is that most issues are negotiable under an EDC whereas PBC is more prescriptive. PBC is a more assured way to achieve a no cost scenario if it is accepted by military department as transfer method.

3.5.6.8 Selection of Partner for Water Service Delivery

FORA has s a unique opportunity to achieve conversion of a military base to a variety of non-military uses that enrich the economic base of the region while maintaining and enhancing environmental assets for the area. FORA wishes to develop a partner to assist with the delivery of water service to that reuse program. There are a number of specific needs that will have to be met by those aspiring to be selected as that partner.

Request for Qualification - Applicant requirements

A) Demonstrated experience providing utility services to a mixed set of land uses including creative assistance to development opportunity, strong and effective customer relations, a balanced financing plan for operations and capital needs, prompt and effective response to service calls and emergencies and proven community acceptance.

B) Provide for annual review of operating and capital budget and estimated rates for service. Annual budget and rate review to take place in a reasonable time period in advance of the proposed budget year to allow for discussion and evaluation by FORA Board, staff and public.

C) Users rates to be implemented on a set of tiers consistent with FORA financial planning intended to assist early development while retaining ability to meet long term capital requirements and assure equity to all land user.

D) Provide an annual reserve account adequate to meet contingencies and emergencies.

E) Develop a short and long range financing plan for both operating and capital requirements for the utility system.

F) Include in the financing plan recommendations relative to additional financing authority for FORA that my require legislative amendment to existing laws.

G) Provide a minimum of $150,000 compensation to FORA in addition to an annual percentage of gross receipts earned from water sales.

H) Provide recommendations on the sharing of system acquisition costs if there is a future negotiation regarding Economic Development Conveyance from the Army.

I) Define a full scale, comprehensive water conservation program and provide an action plan to implement the program as quickly as possible.

J) Ability to finance any unforeseen costs and liabilities independently from FORA.

K) Provide comprehensive indemnity for FORA with all forms of insurance needed including: liability, workers compensation, property damage, personal injury and faithful performance.

L) Willingness and ability to acquire small water systems operating in the service area.

M) Explore all reclamation possibilities and address within 180 days any reclamation program that will result in savings for potable water

N) Certification that prevailing wages determined by the U.S. Department of Labor will be complied with at all times.

O) Certification that any and all requirements of state and/or federal permits affecting water operations will be fully complied with.

P) If the proposer is a private enterprise, a factual showing that service to be provided to Ft. Ord under the reuse program is at a cost tot he user that is equal to or less than costs that would be imposed upon the use if the operations were performed by FORA and/or its staff. This provision foes not apply to a proposer that is also a public agency.

Q) Certification that if the proposer is a private enterprise that will provide to FORA all data, analysis, information and specifications set forth in Government Code Section 54253 and Public Utilities Code Section 10013 at no cost to FORA. Evidence of a previous viable partnering relationship with a public agency is highly desirable.

R) Provide a plan to monitor water quality produced from wells and capability to meet an maintain all requirements of the State Department of Health Services regarding eater quality for domestic water systems. This plan should address possible infiltration of toxic elements from off-well locations, frequency of well monitoring, contingency plans for loss of acceptable well quality standards.

S) Provide a plan for monitoring infrastructure system capability to serve users consistently and reliably and identify possible loss of service problems and suggested solutions.

T) Specifically identify any unique advantages that your agency can provide to FORA and the land use agencies in the planning, financing and operations of a water system. This should include any other specific on-time up front and ongoing financial consideration to FORA and the land use agencies.

Request for Qualifications - Selection Criteria

The utility selected to provide the work set forth in this RFQ must be able to demonstrate qualifications in the following areas of responsibility.

1. **Creative Financing for Planned Development** Reuse of the base requires a rapid start to a variety of uses. These uses may be able to take advantage of competing properties and alternative locations. Finding solutions to infrastructure financing may play a pivotal role in winning over the competition.

2. **Understanding of Land Use Processing and Permitting** A variety if public agencies are responsible for the permitting processes dealing with land use activity on the base, It is critical that proposers have awareness of this and be prepared to work cooperatively and in partnership with these agencies.

3. **Economic Analysis and Development Strategy Formulation** Skills in undertaking independent studies and interpreting existing studies and relevant data are important to building a team of service providers that is sensitive to development needs and yet balance those needs with environmental and regulatory requirements.

4. **Accessibility to FORA for Responsible Decision Makers** The utility must show an ability to have on-site personnel responsible for major decisions without subsequent review and approval.

5. **Prior Partnering with Public Agencies** It is highly desirable that the selected utility have experience in a close, viable partnering relationship elsewhere in California.

6. **Demonstration of Water Resource Management Issues on Peninsula** Candidate submitting proposals for consideration should demonstrate knowledge of and ability to participate in the cooperative achievement of goals and objective adopted by local, regional and state water resources agencies to improve the management of water on the peninsula.

3.5.7 Transition Strategy for Wastewater Collection System

Although FORA attention has been focused on water supply and water system transfer issues, a logical extension of FORA's operational policy determination would include the wastewater collection and disposal system. This section describes the relationship between potable water supply and wastewater disposal infrastructure and suggests an action plan for the transition process.

3.5.7.1 Infrastructure Inter-Relationship

The water supply system can be viewed as a continuous pipeline flow of potable water from the source to the tap in the users house or building. In between will be found treatment facilities to insure health and quality standards, pumps and storage tanks to serve defined pressure zones, and metering devices which record flows as a basis for billing the various customers. The in-house or in-building use of that water supply essentially degrades water quality because of added contaminants and the used water enters the domestic or industrial sewer system as wastewater. There is some loss in volume between potable and wastewater flows due to irrigation, evaporation and transfer but, in general, 80% to 90% of potable water is reflected in wastewater flows (excepting some industrial processes.) Thus, it is practical to relate the easily measured potable water flows to expected wastewater flows "downstream" which are less meterable because of suspended or floatable materials.

After discharge to the sewer system, the wastewater generally follows a downward sloping "gravity flow" profile into larger and larger pipe sizes as tributary flows are collected by means of trunk sewers and interceptor pipelines. Finally, the wastewater flows to a treatment facility which removes the contaminants and prepares the water for discharge into the environment. Lift stations to overcome topographic obstacles to gravity flow may be found in a sewerage system but storage is not built since the goal is that of transferring wastewater to treatment as quickly as possible.

In the case of the operating Fort Ord water and wastewater systems, there are established regional agencies at each end of the system. The Monterey County Water Resources Agency (MCWRA) feeds the ground water supply and regulates the water extracted. The Monterey Regional Water Pollution Control Agency (MRWPCA) owns and operates the regional interceptor sewer lines, lift stations, and the regional treatment facility located just north of the Ford Ord boundary.

Further similarity is evident in the Army's agreements for water supply with MCWRA (as summarized previously) and with MRWPCA for transport capacity to and treatment capacity in the regional plant. 'Both agreements are expected to be transferred to FORA and there is a replication of the wholesaler of water role that is possible in respect to wastewater treatment capacity as well.

3.5.7.2 Wastewater Treatment Capacity

At this point in time, the Army essentially owns 3.3 million gallons per day (MGD) of wastewater treatment capacity in the regional treatment plant subject to a formal agreement with MRWPCA. The constructed plant has a capacity of 29.6 MGD and currently treats approximately 20 MGD including flows from Fort Ord. Consequently, there is additional treatment capacity still available to accommodate future growth in Salinas, on the Monterey Peninsula and at Fort Ord. For planning purposes, the buy-in cost to MRWPCA's plant and interceptor system is estimated at $10 per gal per day.

With the exception of an antiquated Imhoff Tank at East Garrison, no wastewater treatment is accomplished at Fort Ord and the current regulatory environment favors the concentration of all flows at the regional plant for treatment. Such a situation makes reuse of Fort Ord more attractive particularly since wastewater flows from initial reuse activities can be accommodated within the 3.3 MGD of capacity already committed to Fort Ord.

The only negative factor in this otherwise favorable situation is the question of who can claim the effluent flows from the regional plant and produce reclaimed water for future irrigation or industrial purposes. By reason of constructing a tertiary treatment plant which will receive all effluent from the regional plant, MCWRA claims all wastewater flows (up to 29.6 MGD plant capacity) for agricultural irrigation purposes in the Castroville area. However, the Marina Coast Water District has negotiated a right to claim reused water quantities essentially equal to that district's inflow to the regional wastewater collection and treatment system. This source of reused water can meet much of the future irrigation requirements at Fort Ord.

3.5.7.3 Wastewater Collection Options

Based upon topographic considerations, the future wastewater collection system is logically divided to serve three main service areas. Two of those service areas will flow westward into the MRWPCA interceptor along Beach Road and together will serve the current Main Garrison lying west of 8th Avenue. It also appears possible that the two systems can be divided so that the area south of the CSU campus would be in one service area while CSU and north would be in another.

This physical plan leads to an operational configuration whereby the southern service area would be annexed to the Seaside Sanitation District while the northern area would be added to the Marina Coast Water District for sewer service. The third eastern service area basically requires a new and separate wastewater collection system servicing areas in both Marina and Monterey County. Annexation of the eastern service area to the Marina Coast Water District was also recommended in the FORIS Report.

Overall, then, the operational configuration respects city boundaries, utilizes existing sewer service agencies, and depends upon MRWPCA for wastewater treatment (unless reclaimed water availability becomes a problem). Given the Fort Ord topographic configuration, no other

operational pattern or assignment of sewer service areas matches reality except for a possible stand-alone system at the East Garrison.

3.5.7.4 Capacity Allocation and Future Capacity Procurement

The one overriding Fort Ord-wide operational issue in respect to wastewater which FORA seems best equipped to offer is that of 1) uniformly distributing the advantages of the existing 3.3 MGD treatment capacity in the regional plant; and 2) collecting sufficient funds in parallel with wholesale water rates to insure that "buy in" money is available when additional treatment capacity is needed. Just as the 6600 acre feet per year of potable water supply would allow FORA a sufficient time period to accumulate funds for the desalination plant, the 3.3 MGD of treatment capacity allows a parallel time period during which "buy in" moneys can be banked as well. There is the option of utilizing MRWPCA's existing procedure of requiring buy in at the time of each sewer connection. This approach puts the cost up front for each reuser or, if free connections were allowed up to the 3.3 MGD, would require later reusers to pay a disproportionate buy in fee.

Correspondence from MRWPCA to FORA (Keith Israel, General Manager, 6/10/94 letter to Jack Barlich, Chairman) requests guidance as to how the 3.3 MGD of treatment capacity in the regional plant now held by the Army should be transferred, reserved, repurchased or assigned. The MRWPCA concern is that without a plan for transfer of that capacity, the Agency will find it necessary to impose "substantial connection fees".

On 6/14/94 Mr. Robert Jaques, MRWPCA's Manager of Engineering, made a presentation to ITAC on the wastewater treatment and reused water production capabilities at the Regional Plant and subsequently drafted a discussion paper for ITAC review. That review was concluded on 7/26/94.

The ITAC discussion dealt with the following issues:

1. The concept that wastewater treatment capacity, once purchased, is generally assumed to "run with the land".

2. The goal of claiming all or part of the future wastewater flows from the Fort Ord Area as a source of reused water. This goal is contradictory to the current situation where all wastewater treated at the Regional Plant is assigned to the County Water Resources Agency as a source of reclaimed water for agriculture.

3. The value of using the existing wastewater capacity as an early advantage in supporting economic revitalization of the Base. This would be accomplished on the assumption that the Army's previously purchased treatment capacity would be transferred to FORA and that FORA would establish a reassignment of that capacity which would, in part, subsidize the connection fees normally charged by MRWPCA.

4. The means by which the FORG policy of insuring that the first reuser and the last reuser pay the same amount (today's dollars plus inflation over time) for their infrastructure requirements can be fulfilled.

3.5.7.5 Action Plan

Based upon previous considerations of wastewater capacity and collection system operations as summarized in this report, the following action plan is recommended so that both future water supply and future wastewater collection and treatment functions are addressed by FORA.

A. Identify wastewater collection and responsibility for procurement of wastewater treatment capacity in the MRWPCA Regional Plant as functions under the guidance, budgeting and operational control of FORA or its Joint Powers Agency offspring.

B. Endorse the concept that FORA (or JPA) will meet the financial obligations associated with the provision of wastewater collection and treatment in the following manner:

- Operational costs to include system repair, replacement and expansion as well as MRWPCA flow condition fees would be collected as a water bill surcharge.
- Future buy-in for treatment capacity in the MRWPCA plant would be met from a FORA Sewerage Connection Fee as set forth in E. below.

C. Immediately institute a transfer of the Army's 3.3 MGD wastewater treatment capacity in the MRWPCA Regional Plant by the following steps:

- Formally request modification of the agreement between Army and MRWPCA to one between FORA and MRWPCA with FORA essentially taking the Army's position.
- Substantiate the modification request as essential to economic revitalization and reuse of Fort Ord thus complying with provisions of the Pryor Amendment for a zero cost transfer of assets or as a public benefit conveyance of existing waste treatment capacity.

D. Based upon the projections of wastewater flows from the 05-01 Infrastructure Cost Analysis, notify MRWPCA that FORA expects to incrementally expand its treatment capacity rights in the Regional Treatment Plant by 4.0 MGD between 2005 and 2045.

E. Also based upon the projections of wastewater flows from the 05-01 Infrastructure Cost Analysis, establish a wastewater treatment capacity increment of a FORA Sewerage Connection Fee at a price of approximately $6.60 per wastewater gallon per day projected to be discharged to the sewerage system by reuser projects. This Fee is to be established on the following basis when all figures are confirmed.

Existing Ford Ord Capacity - POM Annex Flow	2.1 MGD @ $0
Plus	
Buy-in or Constructed Capacity	4.0 MGD @ $10 per gpd
Total Capacity	6.1 MGD @ $40 million
Unit Cost	$6.56 per gpd

F. The proposed fee would be levied as a condition of and at the time of building occupancy.

G. If a pay-as-you-go and potential rate-based financing plan is implemented to cover the wastewater system capital costs (including treatment capacity buy-in) for the first phase of reuse through 2015, then a different set of calculations results. Over the 20 year period, a total of $10.63 million would have to be raised from reusers who would be utilizing 3.33 MGD capacity in the treatment plant to serve the expected development. Thus, the one-time cost as a hook-up fee would come to $3.19 per gallon per day (gpd) of capacity.

$$\frac{\$\ 10{,}630{,}000}{3{,}330{,}000\ \text{gpd}} = \$3.19\ \text{gpd}$$

However, that figure would essentially "capture" the value of the Army's previous investment in treatment capacity and give the advantage to the first phase reusers exclusively. If a similar projection was made for a buildout capacity of 7.33 MGD then the calculations are as follows:

$$\frac{\$\ 64{,}930{,}000\ *}{7{,}330{,}000\ \text{gpd}} = \$8.86\ \text{gpd of capacity}$$

Having the Army's capacity available to serve initial reusers allows adequate funds to be generated on a pay as you go basis. This would also allow the option of replacing a one time hook-up fee - which would be paid by the developer at the time of building occupancy - with a surcharge on water rates so that the capital cost of the wastewater system as well as on-going operating cost would be a defined part of each months water bill.

* Cost to expand the wastewater system beyond Phase I were taken from the FORIS Report.

PFIP 4. Burden Analysis

4.1 BACKGROUND FOR THIS CHAPTER

This chapter has been prepared as part of the Operation Plan Component of the Fort Ord Base Re-use Plan. The information presented in this report is based upon current base reuse planning effort by the EDAW/EMC Team and draws from assumptions, strategies and finding as prepared by this Team. The foundation for the analysis contained in the Operation Plan is EDAW's November 2, 1995 land use/employment/residential forecasts, which were revised/updated on November 14, 1995 and on December 4, 1995.

4.2 PURPOSE OF THE CHAPTER

The present chapter is the first edition of a document that is expected to permit, in the language of the consulting services contract for the Fort Ord Reuse Plan:

> "... a continuing evaluation of the magnitude of the cost of infrastructure and cost of ongoing operations, compared to the value of land and improvements that will exist at Fort Ord as Reuse takes place..."

The intent is to be sure that planning issues, engineering issues, issues of marketability and issues of public finance are all considered concurrently. This will provide an assurance that the resulting Reuse Plan is economically realistic as well as meeting policy objectives.

An updated edition of the present report will be issued at any time that a material change in estimated costs to develop Fort Ord or estimated land values at Fort Ord has occurred.

4.3 AUTHORS OF THIS CHAPTER

The present chapter is being assembled by Angus McDonald & Associates based on data estimates and judgments that were largely prepared by others. The primary sources of data are land use/employment/residential forecast cited above and the following two documents:

Reimer Associates and Angus McDonald & Associates March 7, 1996 *Selection of Public Improvement Projects and 05-04 Infrastructure Cost Analysis.*
(Prepared for the Fort Ord Base Reuse Planning Team)

Sedway Kotin Mouchly Group. (SKMG) *Property Valuations December* 29, 1995
(Prepared for the Fort Ord Base Reuse Planning Team.)

Table PFIP 4-1
Summary of the Burden of Financing Public Improvements

Land Use Category	Units	(4) Base-Wide Facilities	(4) Local Facilities	(1) In-Tract Costs	Total Cost	(2) Market Value Per Acre and Finished Lots	Residual Land Value Per Acre and Finished Lots
RESIDENTIAL - Existing							
Low Density	Dwelling Unit	$8,418	$4,345	Varies	$12,763	$35,000	$22,237
Medium Density	Dwelling Unit	$8,350	$3,423	Varies	$11,773	$35,000	$23,227
High Density	Dwelling Unit	$7,215	$2,127	Varies	$9,342	$35,000	$25,658
RESIDENTIAL - New							
Low Density (4/acre)	Dwelling Unit	$8,407	$4,326	$20,000	$32,733	$95,000	$62,267
Medium Density (6/acre)	Dwelling Unit	$8,363	$4,253	$17,500	$30,116	$70,000	$39,884
High Density (8/acre)	Dwelling Unit	$8,341	$4,217	$13,125	$25,683	$55,000	$29,317
Attached (10/acre)	Dwelling Unit	$7,250	$3,510	$10,675	$21,435	$40,000	$18,565
Attached (20/acre)	Dwelling Unit	$5,394	$2,097	$5,338	$12,829	$20,000	$7,171
RESIDENTIAL - Other							
CSUMB - Existing	Dwelling Unit		Allocated to CSUMB Below				
CSUMB - New	Dwelling Unit		Allocated to CSUMB Below				
POM Annex Housing	n/a						
RETAIL & VISITOR SERVING							
Convenience	Acre	$223,732	$4,038	$75,000	$302,770	$348,480	$45,710
Neighborhood	Acre	$223,732	$4,038	$75,000	$302,770	$348,480	$45,710
Regional/Outlet	Acre	$223,732	$4,038	$76,500	$304,270	$348,480	$44,210
Hotel	Room	$6,419	$170	$2,380	$8,969	$20,000	$11,031
LI/BP & OFFICE/R&D							
UC MBEST	Acre	$58,693	$6,204	$69,000	$133,897	$163,350	$29,453
LI/BP	Acre	$42,093	$2,667	$61,500	$106,260	$130,680	$24,420
Office/R&D	Acre	$57,345	$5,593	$70,500	$133,438	$163,350	$29,912
PLANNED PUBLIC FACILITIES							
Other	n/a						
Miltary Enclave	n/a						
CSUMB	Acre	$38,180	$0	$1,750	$39,930	n/a	n/a
Institutional	Acre	$17,769	$1,093		$18,862	n/a	n/a
Public Schools	n/a						
OPEN SPACE & RECREATION							
Habitat Protection	n/a						
New Golf Courses	Course	$940,015	$77,681		$1,017,695	n/a	n/a
State Parks	n/a						
Equestrian Centers	Acre	$5,770	$955		$6,725	n/a	n/a
Parks & Greens	n/a						

Footnotes:
(1) Costs from Reimer Associates March 7, 1996 Infrastructure Cost Analysis.
(2) Finished Lot values from SKMG.
(3) Demolition costs not inlcuded.
(4) Special tax to finance basewide facilities. Tax funds only Transportation, Habitat and Fire.

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PFIP 5. Public Facilities Financing Plan

Note: No use is made of proceeds from land sales that may go in part to local governments and in part to FORA after disposition of territory within Fort Ord to private parties. Use of land sale proceeds to finance public improvements has not yet been recommended, but is under consideration. Use of land sales proceeds to finance fiscal deficits is also being considered.

5.1 BACKGROUND FOR THIS CHAPTER

This chapter has been prepared as part of the Operation Plan Component of the Fort Ord Base Re-use Plan. The information presented in this report is based upon current base reuse planning effort by the EDAW/EMC Team and draws from assumptions, strategies and finding as prepared by this Team. The foundation for the analysis contained in the Operation Plan is EDAW's November 2, 1995 land use/employment/residential forecasts, which were revised/updated on November 14, 1995 and on December 4, 1995.

5.2 AUTHORS OF THIS CHAPTER

Recommendations on financing for transportation projects, habitat management projects and public services projects were made by Angus McDonald & Associates. Recommendations on financing water system projects and wastewater system projects were made by Reimer Associates and are presented in Section PFIP 3 of the present report.

5.3 SUMMARY OF FINANCING PLAN

The implementation of the Fort Ord Reuse Plan relies on construction of a total $187,118,000 in public improvements that have of Base-wide significance (i.e. of significance beyond any single city or the incorporated area of Monterey County). The present chapter presents recommendations for financing these Base-wide facilities.

The recommendations on financing were based on several key principals.

- Every effort should be made to secure financing (whether grants or loans) from the Federal Government, the State of California, and other governmental or eleemosynary sources. Since these sources of financing are not certain, implementation of the Fort Ord Reuse Plan should not depend on receiving external sources of financing.

- Absolutely no burden to finance public improvements at Fort Ord should be placed on the existing tax base of any jurisdiction in Monterey County. Instead, financing for Fort Ord should "stand alone".

Table PFIP 5-2
Residual Land Value Analysis

Land Use Category	Units	(4) Base-Wide Facilities	(4) Local Facilities	(1) In-Tract Costs	Total Cost	(2) Market Value Per Acre and Finished Lots	Residual Land Value Per Acre and Finished Lots
RESIDENTIAL - Existing							
Low Density	Dwelling Unit	$8,418	$4,345	Varies	$12,763	$35,000	$22,237
Medium Density	Dwelling Unit	$8,350	$3,423	Varies	$11,773	$35,000	$23,227
High Density	Dwelling Unit	$7,215	$2,127	Varies	$9,342	$35,000	$25,658
RESIDENTIAL - New							
Low Density (4/acre)	Dwelling Unit	$8,407	$4,326	$20,000	$32,733	$95,000	$62,267
Medium Density (6/acre)	Dwelling Unit	$8,363	$4,253	$17,500	$30,116	$70,000	$39,884
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Attached (20/acre)	Dwelling Unit	$5,394	$2,097	$5,338	$12,829	$20,000	$7,171
RESIDENTIAL - Other							
CSUMB - Existing	Dwelling Unit		Allocated to CSUMB Below				
CSUMB - New	Dwelling Unit		Allocated to CSUMB Below				
POM Annex Housing	n/a						
RETAIL & VISITOR SERVING							
Convenience	Acre	$223,732	$4,038	$75,000	$302,770	$348,480	$45,710
Neighborhood	Acre	$223,732	$4,038	$75,000	$302,770	$348,480	$45,710
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Hotel	Room	$6,419	$170	$2,380	$8,969	$20,000	$11,031
LI/BP & OFFICE/R&D							
UC MBEST	Acre	$58,693	$6,204	$69,000	$133,897	$163,350	$29,453
LI/BP	Acre	$42,093	$2,667	$61,500	$106,260	$130,680	$24,420
Office/R&D	Acre	$57,345	$5,593	$70,500	$133,438	$163,350	$29,912
PLANNED PUBLIC FACILITIES							
Other	n/a						
Miltary Enclave	n/a						
CSUMB	Acre	$38,180	$0	$1,750	$39,930	n/a	n/a
Institutional	Acre	$17,769	$1,093	$0	$18,862	n/a	n/a
Public Schools	n/a						
OPEN SPACE & RECREATION							
Habitat Protection	n/a						
New Golf Courses	Course	$940,015	$77,681	$0	$1,017,695	n/a	n/a
State Parks	n/a						
Equestrian Centers	Acre	$5,770	$955	$0	$6,725	n/a	n/a
Parks & Greens	n/a						

Footnotes:
(1) Costs from Reimer Associates March 7, 1996 Infrastructure Cost Analysis.
(2) Finished Lot values from SKMG.
(3) Demolition costs not inlcuded.
(4) Special tax to finance basewide facilities. Tax funds only Transportation, Habitat and Fire.

5.4 FINANCING POLICIES AND PRINCIPALS

5.4.1 The Purpose of the *Public Facilities Implementation Plan*

The Fort Ord Reuse Authority's *Public Facilities Implementation Plan* (*PFIP*) is the implementing document for the *Fort Ord Reuse Plan* policies on public facilities. The purpose of the *PFIP* is to ensure that public facilities are adequate as reuse occurs at Fort Ord in accordance with the *Reuse Plan.*

The PFIP is concerned only with Base-wide facilities[7] that are necessary to implement the Fort Ord *Reuse Plan.* The *Reuse Plan* will contain targets for Level of Service (LOS) for each class of Base-wide facilities. These facilities must be constructed in a timely manner and financed in a manner that equitably divides financial responsibility in proportion to the demands placed on new facilities. FORA will seek all potential sources of financing for public improvements, including federal and state grant as well as all locally-controlled sources of financing. The intent, however, is to ensure that infrastructure to serve the reuse of Fort Ord does not place any burden on the tax base of the local government with the responsibility for lands within Fort Ord.

The *PFIP* described in the present report is intended to finance public improvements for the period July 1, 1996 to June 30, 2016 (i.e. fiscal years 1996/97 through 2015/16. It should be understood that the public improvements required to implement the Facility Master Plans have been designed to be implemented in a timely manner, over this entire planning period. The service capacity or the cost over some arbitrarily-selected span of years during that planning period may be higher or lower than the average amount of capacity added or cost incurred during the entire planning period. It is frequently necessary to construct projects in their entirety rather than be able to add very small increments of capacity each year directly in response to demand. Thus, the "average cost" may vary significantly from year to year, over the planning period.

The *PFIP* incorporates the CIPs for the Base-wide facilities cited previously. The CIPs plus the accompanying text in the present report identifies the purpose to which impact fees to finance Base-wide facilities are to be put and demonstrates the relationship between the fees and the purpose for which they were charged. The adoption of these CIPs, together with a careful practice of FORA to establish accounts[8] and appropriating funds for implementation of the *PFIP*, complies with the requirements of the CIPs for the Base-wide facilities cited previously.

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[7] According to Government Code § 67655 "Base-wide facility" means a public capital facility which, in the judgment of the [Fort Ord Reuse Authority] board is important to the overall reuse of Fort Ord, and has significance beyond any single city or the incorporated area of the county.

[8] A single account can be used if a single Mello-Roos special tax is used to finance habitat and fire protection as well as the transportation improvements.

5.4.2 The Process of Preparing *The Public Facilities Implementation Plan*

The sequence of planning for increased capacity and expanded public improvements at Fort Ord is as follows:

- The Fort Ord Reuse Plan and accompanying growth management policies and ordinances are adopted.
- A forecast is made of the growth and development that can reasonably be expected to occur, given the policies of the jurisdictions with land use authority for lands within Fort Ord.
- Levels of Service (LOS) and Timing Standards for each major service are adopted. The term "Timing Standard" refers to an adopted policy as to when a public improvement must be in place to avoid an unacceptable degradation in the Level of Service.
- Facilities master plans are prepared or updated and preliminary engineering designs are prepared for the required amount and location of new capacity that will serve the planned and predicted growth, at the LOS standard.
- Engineering cost estimates and timing of project expansion are prepared.
- A means of financing is selected.

The following paragraphs describe policies and principles that apply to all the Financing Plans that are summarized in the present document.

5.4.3 Forecast of Growth and Development

A forecast of the rate at which reuse will occur and Fort Ord is a key step in developing the *Public Facilities Implementation Plan.* Assumptions about the amount of growth and its location on the territory of Fort Ord have a strong influence on the location, the capacity and the cost of public facilities. The forecast of amount of growth also largely determines the forecast of capacity to finance public improvements.

The forecast of the rate of at which reuse will occur at Fort Ord was cited in Section 5-1. It should be understood that the forecast of the amount and location of reuse was used directly and explicitly in preparing facilities master plans estimates of capacity required to extend public services and estimates of cost of public improvements. Accordingly, there is a direct relationship between the forecast of development, the forecast of required facilities, and the forecast of cost and required financing.

The land use categories in the Fort Ord Reuse Plan are also used in the *PFIP.*

The Fort Ord Reuse Plan will define land use categories in terms of a range of densities and intensities that can be permitted. The Facility Master Plans and the PFIP were based on the expected value for land use intensities for future development. These estimates of expected value for land use densities/intensities reflect trends and market forecasts and may change from year to year. The expected values are used for engineering design purposes only.

If FORA adopts a development impact fee ordinance it is recommended that this ordinance include an administrative procedure to deal with exceptions (i.e., significant departures from assumptions about land uses and their impact on demand for public improvements that may occur in the future).

5.4.4 Level of Service and Timing Standard

The term "need" applies to certain basic human requirements such as personal safety and implies a responsibility to meet that need without regard to cost. In general, however, public services are measured as demands where different Levels of Service can be selected by the people and their political leaders, reflecting a willingness to pay for a Level of Service that is selected. The concept of demand is fundamental to FORA's *Public Facilities Implementation Plan.*

5.4.4.1 Level of Service Standard

A Level of Service is selected, and then the facilities required to provide that Level of Service are designed and their costs are estimated. If a different Level of Service had been selected, then a different set of cost estimates in the PFIP would have emerged. A specific and measurable Level of Service target was incorporated into each of the public facilities master plans. The target for Level of Service directly influenced the capacity and cost of public services.

5.4.4.2 Timing Standard

The timing (i.e., the year[s] of construction) of planned public improvements is often a key consideration that affects the success of a program for extending public service. FORA has set a target such that capacity is sought to be available to serve demand at the specified Level of Service, but not to anticipate demand.

The general standards for timing of construction of public improvements are as follows:

- Wherever possible, the land ultimately required for each improvement included in a Facilities Master Plan will be preserved before development occurs in an area.

- Improvements will be in place before the Level of Service has degraded unacceptably below the LOS target for each class of public facilities.

More specific timing standards are presented for each class of facilities in the appropriate section of the present report.

The required timing for each public improvement is related primarily to the additional development [9] that will be served by that improvement. In general, the point when demand for additional service capacity creates the requirement to complete a public improvement project, is measured in terms of cumulative Dwelling Unit Equivalents added. An example might be: "...When 3,000 water Dwelling Unit Equivalents have been added." These point of demand, measured in the appropriate Dwelling Unit Equivalents, are then tied to the calendar by means of the development forecast described previously.

The distinction between demand measured in Dwelling Unit Equivalents and demand measured as a point in time is more than a technical nicety. Development forecasts -- particularly short-term development forecasts -- have proven to be notoriously inaccurate. A major strength of FORA's *Public Facilities Implementation Plan* process is that financing is related directly to demand. Projects are staged when demand occurs and are not rigidly tied to the calendar. A future that differs from the forecast is self-correcting in that:

- A slowdown in the development produces a slower rate at which additional capacity will be demanded as well as a slower rate at which development impact fees will be accrued.

- If development occurs faster than expected, then special taxes or development impact fees will be available sooner to construct improvements to serve the subsequent, accelerated demand.

5.4.5 The Public Facilities Plans

The present section describes the process that leads from the forecast of development being served and the assumption about Level of Service and timing to the design of individual public improvement projects.

5.4.5.1 Facility Master Plans and the *PFIP*

The *Public Facilities Implementation Plan* is based on a Facilities Master Plan for each of the public services included within the *PFIP*.

FORA's *PFIP* is a detailed statement of the City of Marina, City of Seaside and County of Monterey's intention to plan and construct public facilities over a planning period of twenty years. The first adopted *PFIP* covers the period beginning in Fiscal Year 1996/97 and ending in Fiscal Year 2015/16. The intent is to update the *PFIP* every fifth year. For example, in the year 2000 five years will be added to the planning period, and the *PFIP* will include the years 2000/2001 through 2020/2021.

Thus, the *PFIP* document will always cover a time period of between fifteen and twenty years.

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[9] Additional development is measured in Dwelling Unit Equivalents (DUEs). A discussion of the purpose and use of DUEs begins in Section PFIP 5.4.6.

A time period of this length is realistic for purposes of planning and building public improvements. A longer time period (e.g., fifty years) would require assumptions to be made about changing technology, long-term costs of energy, demographic trends, etc., that cannot be reasonably predicted. A fifteen-to-twenty-year planning period offers some assurance that cost per unit of development will be relatively uniform and that the public improvements that are scheduled for construction can be constructed for the estimated costs.

Facility Master Plans, which have been prepared for the major categories of public improvements, are designed to accommodate the total growth that would be permitted under the *Fort Ord Reuse Plan* (i.e., beyond 2015). In order to implement Facility Master Plans, lands for public purposes (in particular, right-of-way for transportation projects) should be preserved, even though development may not take place for many years in the future.

The buildout of residential land (given current market trends) would occur significantly before buildout of lands designated for commercial and industrial purposes. Accordingly, a mechanical process of multiplying acres available times the expected density/intensity of land use, which might be called "ultimate buildout potential," would produce a misleading and technically-incorrect result. "Ultimate buildout" as defined above, could not be used for financial or fiscal planning purposes, since the time at which buildout of different land use categories is separated by years (or even decades). The use of "ultimate buildout" for financial or fiscal planning would implicitly involve a combination of dollars from different time periods, with different purchasing power. This violates principles of both economics and accounting.

Accordingly, a twenty year planning period was selected for facilities planning and financing.

5.4.5.2 Phasing of Improvements

The facilities master plans are useful as guides to the phasing of improvements, but the portion of the PFIP that is financed from development impact fees is based on the most efficient and economical program for extending public services through Fiscal Year 2015/2016. Public improvement projects are phased over time, based on a three-step process.

- The forecast of development cited previously was the starting point for an assumption about when demand for services will occur and where this demand will occur geographically. The forecast was based on an estimate of realistic market absorption rates.

- The development forecast took into account various factors which influence the location of development, such as proximity to major sewer and storm drain facilities and the schedule for planned improvements on the State Highway System.

- Capital Improvement Projects were then phased in the most efficient manner, given the forecast of growth to be served and given the recommended Level of Service and Timing Standards.

Phasing of development and the public improvements to support that development is based on forecasts and assumptions. Phasing per se is not a statement of the policy. Landowners and developers may request a different phasing of public improvements. If, at the discretion of FORA, this different phasing can be accommodated without compromising the objectives of the *Public Facilities Implementation Plan*, a *PFIP* amendment can be adopted. If necessary, landowners who request a different phasing may be asked to provide advance funding for the incremental cost to provide infrastructure in advance of the time when the most efficient and economical Capital Improvement Plan would provide these improvements. The PFIP can then include provisions for reimbursement to those who advance funds. Reimbursement would occur at the time that the affected improvements would originally have been constructed. Reimbursement would be made in dollars of then current purchasing power.

5.4.5.3 Cost Estimates for Capital Improvement Projects

The capital costs assigned to each public improvement project are based upon concept plans at a scale of 1":1000'. Costs are preliminary and present the conceptual nature of infrastructure planning to date. Costs do not include demolition, except as noted, hazardous waste or munitions clean up, environmental mitigation, or right-of-way within For Ord, agency fees, financing costs or on-going operations and maintenance. The schedule is based on route information available as of November 1995. The EDAW/EMC Team Members assume no liability for changes in quantities or prices due to unforeseen or subsequent condition or for changes directed by controlling agencies. The engineering costs estimates were originally expressed in terms of the costs that are expected at mid year 1995. An assumption about cost increases is included in the present analysis for the purposes of developing a financing plan. The costs estimates include a 15% contingency and 20% for Engineering, Administration, Surveying, Soils Investigations and Construction Management.

It is assumed that the *Environmental Impact Report* on the Fort Ord Reuse Plan will deal with issues of regional significance. It is assumed that any further environmental review will deal solely with highly localized impacts. The project cost estimates attribute any future additional environmental study cost to be a part of the 15% contingency

It is assumed that all right-of-way within the territory of Fort Ord will be identified and set aside before the PFIP is actually implemented. According, there is no allowance for the cost of right-of-way on the territory within Fort Ord in the PFIP. An allowance is provided for a right-of-way that will be required for projects located outside of Fort Ord (e.g., regional road-way improvements). It was assumed that this right-of-way would be purchased at fair market value.

5.4.5.4 Financing Zones

The territory within Fort Ord was treated as a single financing zone for the purposes of the preliminary analysis in the present report. This assumption may prove to be adequate for the water, sewer, and habitat projects and for a fire facility that can be considered a base wide facility. It is a virtual certainty that a single financing zone is <u>not</u> appropriate for a transportation impact

fee. A more refined analysis will be necessary before a final Cities/County transportation impact fee can be adopted.

5.4.6 Allocating Responsibility To Pay

A plan for financing public facilities must reflect that fact that, in general, commercial and industrial land uses create a demand for services in addition to the demand created by residents and dwelling units.

5.4.6.1 The General Case

Demand for public services can be expressed in a common vocabulary for all land use categories by converting all land use categories into their "Dwelling Unit Equivalents" (DUEs). The Medium Density Residential land use category is selected as the benchmark or norm. It is assigned a DUE factor of 1.0. The demand for capacity imposed by all other land use categories is then calculated relative to the demand imposed by a Medium Density dwelling.

A simple example can illustrate the concept. Demand for wastewater collection is estimated for each land use category in terms of total gallons per acre per day. This assumption, together with the assumption about future average densities and intensities can be lead to a calculation of relative production of wastewater by dwelling units in each residential land use category and by 1,000 square feet of commercial building space and by 1,000 square feet of industrial space. These demand estimators can then be normalized by using the value for the Residential Medium Density land use category as the base.

It should be noted that DUE factors differ for water, sewer collection, transportation, etc.. The comparative demands based on each of these services by (for example 1,000 square feet of Regional Retail development) is not the same, compared to the demands created by a Residential Medium Density dwelling unit.

A full specification for DUE factors and a forecast of DUEs added through Calendar Year 2015 are presented for transportation, habitat management, and fire protection in Section PFIP 5.5 of the present report. These forecasts guided the engineering, design and cost estimating that was part of the PFIP process. Thus, there is a direct relationship between each category of land use and the cost of public improvements.

5.4.6.2 DUEs and Special Tax Rates

The discussion to this point in Section PFIP 5.4.6 has emphasized Dwelling Unit Equivalent (DUE) factors that would be used to establish relative rates of a development impact fee. It was assumed that the DUE factors would provided the necessary nexus between land development and public improvement projects as required by government code §66000 et seq. and by recent US Supreme Court decisions.

The strict nexus requirements for a valid development impact fee do not apply if a special tax is used to finance public improvements. Instead there must be the less demanding test that there be general benefit to a particular land use if a public improvement is constructed.

Nonetheless tax rates for a special tax (e.g. a tax levied by a Mello-Roos Community Facilities District) can be expressed in the same format as the DUE factors that are used for a development impact fee.

5.4.7 Policy Assumptions on Sources of Financing

Preference for sources of financing were described in Chapter PFIP 1. of the present report.

5.4.8 Calculating Development Impact Fees

Three separate outcomes can result when development impact fees are calculated.

5.4.8.1 "Simple" Development Impact Fees

In some situations, financing public improvements on a "pay-as-you-go" basis is quite straightforward. This occurs if individual projects are relatively small compared to the total cost of the program. Cash flow issues can be minimized and projects can be designed and constructed as impact fees are collected.

The development impact fee applicable to this situation is approximately equal to the total cost of all improvements, divided by the total number of DUEs that have been forecast to develop through 2015. This relationship is approximate, rather than exact, because the balances in the development impact fee accounts earn interest, and interest is earned by, or paid on, borrowings between development impact fee accounts to accommodate cash flow requirements.

5.4.8.2 A Different Fee During Different Time Periods

In general, public improvements cannot be sized precisely so that the added capacity exactly meets the added demand at the point in time when this capacity becomes available Capacity is normally added in discrete increments. For example, a street must be widened in increments of full lanes, and this frequently provides more capacity than would absolutely be required to meet the LOS target. As another example, a sewer project must be of certain size to be economically constructed and must use commercially available sewer pipe that is available only in discrete diameters.

The result is an improvement whose capacity unavoidably exceeds demand at the time that construction is completed.

It is frequently the case that the phenomenon described above leads to a situation where the total cost per Dwelling unit Equivalent to meet Level of Service and timing standards is higher in the

early years of a program than is the case in later years. The capacity that is financed in the early years unavoidably exceeds the demand because of the necessity to build reasonable and practical increments of capacity.

If necessary the FORA *PFIP* can deal with this situation by dividing the entire planning period into subperiods. A development impact fee is adopted for each time period within the overall twenty-year planning horizon such that the fee is adequate to meet the LOS and timing standards for development which occurs during that period. For example, if the cost per DUE is higher for the first seven years, then a fee is adopted that will be adequate for this seven-year period.

In the situation described above, even though capacity in excess of demand for the (presumed) seven year period was unavoidably produced, this capacity will also benefit those who develop after Year 7.

FORA intends to re-evaluate growth, trends and forecasts regularly and to impose a development impact fee on those developers who will utilize the excess capacity of a factuality, if any has been created. The money collected from these developers will be placed into a development fee account and, at regular intervals, after the facility is built, may be distributed to the developers who paid the original development impact fee used to construct the facility. This distribution would be in proportion to the original fee contributed from each developer, plus an allowance for interest from the date of contribution.

Developers who wish to participate in this reimbursement program are expected to enter into an agreement with FORA. This agreement will generally provide that if future development occurs that would utilize excess capacity of a public facility, and if FORA is able to collect development impact fees for such development, then the developer would be reimbursed for a portion of the development impact fee that he or she has paid.

5.4.8.3 Borrowing Between Impact Fee Accounts

It is frequently the case that years of greatest cash requirement for different classes of public facilities occur at different times. It becomes possible in that case to borrow between development impact fee accounts and eliminate the requirement for different fees during different time periods. The applicable rules are:

- An accounting is made for borrowings and a payment of interest to the development impact fee account from which funds are loaned. This financing cost is included in the impact fee for the impact fee account receiving the funds but, in return, a higher fee can be avoided.

- In no case can the fee for any impact fee account that loans money to another account be higher than would be the case if no inter-account borrowing was allowed.

FORA should adopt a high standard of prudence and care when consideration is given to temporary borrowings between development impact fee accounts. Funds accumulate in a

development impact fee account because it is necessary to collect impact fees over a number of years to have the means to finance a public improvement in a future year. If these funds are loaned to a second development impact fee account, this account must be in a position to repay the loan on or before the date at which the public improvement project was scheduled to be built.

5.4.9 Monitoring Development and Updating The *Public Facilities Implementation Plan*

It is recommended that FORA review the *Public Facilities Implementation Plan* and each Development Impact Fee resolution annually, at or near the start of the fiscal year. Any change in development impact fees would generally be effective on January 1 of the following calendar year. The *PFIP* is subject to revision because of several factors. These factors include the impossibility of forecasting exactly the rate and location of development in FORA, variations in the cost of construction of public improvements and variation in the standards that may be applicable in the future to the design of individual public improvements. At a minimum, the change in development impact fees will reflect changes in the Engineering News Record 20-Cities Average Construction Cost Index and would also reflect any changes in design standards or costs of projects that had occurred during the previous fiscal year.

In addition, FORA intends to assure that the *Fort Ord Reuse Plan* and the various Public Facilities Master Plans remain responsive to FORA policy and changing development conditions. FORA intends to review both the *Fort Ord Reuse Plan* and the Facility Master Plans on a five-year cycle. Policies in an amended *Fort Ord Reuse Plan* will be incorporated into all of FORA's Facility Master Plans and into each impact fee Ordinance and Resolution. At the same time, a forecast of growth and development for an additional five years will be added to the planning period for each *Fort Ord Reuse Plan* document.

Information about changes in the availability of State/Federal grants and loans or other sources of revenue will be incorporated into the fee programs during the annual review.

5.4.10 Financing Assumptions

The Financing Plan is dependent upon accurately predicting the true value of money and the changes in construction cost over the period of the *PFIP*. This statement is particularly true if municipal bonds are used to finance public improvements since there is limited opportunity to respond if projects are significantly more expensive than anticipated. The accurate forecast of future money market conditions is less critical because development impact fees can be adjusted annually. In this regard, the following assumptions have been incorporated into the *PFIP* financial analyses.

5.4.10.1 Inflation Rate: 3.20%

Project costs will be inflated based upon project phasing.

5.4.10.2 Tax-Exempt Rate: 7.20%

The tax-exempt interest rates that will be used for the analysis will change with market conditions.

5.4.10.3 Taxable Rate: 9.20%

The taxable rates used will be 200 basis points over the tax-exempt rate.

5.4.10.4 Construction Drawdown Schedules

The construction drawdown schedules for all project elements will be provided by the consultant engineers.

5.4.10.5 Capitalized Interest Reinvestment Rate: 5.00%

The reinvestment rates used reflect current market rates on Treasury securities, unless those rates exceed the tax-exempt interest rate in which case the tax-exempt interest rate is used as the reinvestment rate. If a Treasury security is used, the term of the security reflects the mid-point of the life of the fund.

5.4.10.6 Debt Service Reserve Fund Size: 10.0% of Par

5.4.10.7 Debt Service Reserve Fund Reinvestment Rate: 5.00%

The reinvestment rate for the debt service reserve fund reflects the current market rate for a 5-year Treasury note unless that rate exceeds the tax-exempt interest rate. Under such conditions, the tax-exempt interest rate is used.

5.4.10.8 Costs of Issuance

Costs of issuance associated with each bond issue, if any, will be calculated separately for each proposed bond issue. These costs include underwriters' fees, bond counsel, financial advisor, costs of printing, etc.

5.4.11 Overall Intent

A concluding statement about *PFIP* policies and principles is appropriate. It is recommended that FORA adopt an overall statement of intent to have a *PFIP* update process that is flexible and responsive to changing conditions. Careful consideration should be given to proposals submitted by landowners for interim or permanent solutions that better serve landowners' development opportunities within the overall constraint of the *Fort Ord Reuse Plan* and *PFIP* goals and policies.

It is recommended that FORA staff be given authority and responsibility to treat updating and maintenance of the *PFIP* as a very high priority.

5.5 FINANCING PLANS FOR BASE-WIDE PUBLIC IMPROVEMENTS

The present section of the report describes the financing plan for each class of Base-wide public improvements.

5.5.1 Financing Plan for Transportation Improvements

5.5.1.1 Purpose of the Financing Plan

As discussed more fully in Section PFIP 5.4.1 the general purpose of financing plans for all Base-wide facilities is to provide a means to finance the public improvements required to meet the objectives of the Fort Ord Reuse Plan. The specific purpose is to assure financing for the transportation projects listed in Section PFIP 1.7 of the present document.

The principals for financing public improvements that were listed in Section PFIP 1.5 are each applicable to the present section. They are incorporated by reference into the present section.

5.5.1.2 Development Being Served

The financing plan for transportation improvements is based on the forecast of growth cited previously through the end of calendar year 2015. The financing plan for transportation improvements is based on the concept that services are being provided both to residential and nonresidential land.

5.5.1.3 Level of Service and Timing Standard

The Level of Service (LOS) Standard and the Timing Standard incorporated into the Fort Ord Reuse Plan is summarized in Table PFIP 5-3. It should be understood that the LOS and Timing Standard together with the estimated increase in demand for services that is forecast to occur by the end of calendar year 2015 were used directly to calculate the size and the timing for each planned transportation improvement. Accordingly there is a direct relationship between the forecast of future development, the target for Level of Service, the Timing Standard, and the size and cost of each transportation improvement that will be constructed.

Table PFIP 5-3
Level of Service and Timing Standards
Transportation Financing Plan

	Level of Service (LOS) Standard	*Timing Standard*
TRANSPORTATION	Maintain LOS D on the road network within the territory of Fort Ord. Strive to maintain LOS D on roadways described in the Monterey County Congestion Management Plan, but outside the territory of Fort Ord.	Construct improvements described in the Fort Ord Reuse Plan CIP at a time such that the LOS does not degrade below the bottom end of LOS D for more than three years.

5.5.1.4 Planned Transportation Facilities

Financing requirements for transportation improvements to serve the development that is expected on Fort Ord by the end of the calendar year 2015 are summarized in Table PFIP 5-4. There are four classes of transportation improvements to be financed.

Regional Transportation Improvements. A significant investment will be required to meet Level of Service standards in Fort Ord Transportation Impact Area on major roadways which are currently deficient (i.e. are not meeting Level of Service targets for the existing population). In addition expansion will be required to serve new development both on the territory within Fort Ord and elsewhere in the Fort Ord Transportation Impact Area. An example is improvements to State Highway 156.

New Capacity on Fort Ord. The demand for additional capacity on transportation projects located on territory within Fort Ord may be generated by two separate sources. Demand may be generated by additional trips that begin and end on territory within Fort Ord or that begin outside of Fort Ord but that end within Fort Ord. Examples include a trip that originates at a residence in Fort Ord and end at a new work place in Fort Ord or a home-to-work trip that begins outside Fort Ord and ends within Fort Ord.

Additional Transportation Capacity Outside of Fort Ord That Serves New Development on Fort Ord. There is an analog to increased capacity for transportation projects on Fort Ord that serve new trips that may or may not begin within the territory of Fort Ord. A transportation project outside of Fort Ord may require additional capacity to serve trips

that begin on Fort Ord and end elsewhere in Monterey County, or visa-versa. An example would be additional capacity on Blanco Road.

Offsets for Land Development Projects that are Exempt from Additional Impact Fees or Taxes. There are a significant number of residential and commercial developments in the Fort Ord Transportation Impact Area that have received development approvals and that have filed vesting tentative subdivision maps or entered into development agreements. Development impact fees or special taxes may be recommended to finance transportation projects that provide capacity required by land development projects covered by vesting tentative maps or development agreements. It may not be possible to place additional levies on such land development projects. Accordingly, an allowance is shown in Table PFIP 5-4 for the total cost that would otherwise be appropriately levied against previously-approved land development projects but for the existence of vesting tentative subdivision maps or development agreements.

Financing for costs that are quite legitimately being avoided by land development projects with vesting tentative maps or development agreements can not be obtained from a development impact fee on new development that is not subject to vesting tentative maps/development agreements. As discussed elsewhere, development impact fees must respond to a test of rational nexus. A decision that was quite legitimately made at the time to offer a vesting tentative map or a development agreement to a land development project does not eliminate the need to hold to the rational nexus requirement. If development impact fees are proposed, future development projects (whether located on territory within Fort Ord or located elsewhere in the Fort Ord Transportation Impact Area) could resist a requirement to make up for the financial shortfall that was inadvertently created by a decision that was entirely appropriate at the time but now exempts certain land development projects from paying an impact fee. However a one-time Mello-Roos special tax collected at the time of issuance of a building permit solely on land development projects located within Fort Ord could be levied to finance what otherwise would be a shortfall.

5.5.1.5 The Financing Plan for Transportation Improvements

The recommended sources of financing for each class of transportation improvement is summarized in Table PFIP 5-4. The following paragraphs describe sources of financing in greater detail.

Regional Transportation Tax. The Transportation Agency for Monterey County (TAMC) is currently evaluating alternative sources of financing for transportation improvements are that justified by existing land uses in Monterey County. The leading alternatives currently under consideration are a County-wide sales tax and an innovative tax based on number of vehicle miles traveled (VMT). These sources of financing would be more than spoken for if existing deficiencies are to be financed successfully. Nonetheless remedies for existing deficiencies (e.g. on State Route 68 and 156) have been found by the Fort Ord Reuse Planning Team to be essential to the successful economic development of Fort Ord.

In the following paragraphs recommendations are made that the transportation projects (whether located on the territory within Fort Ord or not) that are required to serve reuse at Fort Ord be

financed from a "stand alone" new source of financing. It is recommended that a new special tax not be used to finance improvements to serve the reuse of Fort Ord.

"Stand alone" financing for transportation projects to serve Fort Ord will enhance the practicality of achieving the two-thirds vote of existing voters that will be necessary to enact a regional transportation tax. In the absence of a "stand alone" policy, opponents of a tax increase for existing deficiencies will ask the question "Why should we tax ourselves to serve residents and employers who don't yet live in our County?" If a regional transportation tax is used exclusively to remedy existing deficiencies, this argument can be countered.

Cities/County Transportation Impact Fee. As noted above, there are transportation improvements located physically within the territory of Fort Ord that provide capacity to serve new development projects located outside of the territory within Fort Ord. It is recommended that the cities in the Fort Ord Transportation Impact Area and the County of Monterey each enact a development impact fee to pay an equitable portion of these transportation improvements.

There is precedent in California for a transportation impact fee that is collected both in cities and the unincorporated area so that new development pays its equitable share of transportation improvements. It has been estimated that a transportation impact fee totaling approximately $3,210 per single family residential unit would pay the equitable share of transportation improvements located both within the territory of Fort Ord and elsewhere in the Fort Ord Transportation Impact Area that should be fairly charged for new development in the Fort Ord Transportation Impact Area but not on Fort Ord.

The transportation impact fee for land uses other than single family residential (i.e. residential in other density categories and commercial and industrial) uses can be approximated using the material provided in Section PFIP 5.5.1.6 of the present report. The Cities/County transportation impact fee for nonresidential land uses is discussed further in that section of this report.

Mello-Roos Special Tax for Transportation Improvements. As the financing plan for transportation improvements was being assembled, it was originally assumed that a development impact fee for transportation improvements would be recommended to finance Fort Ord's share of transportation improvements whether they be located on the territory within or outside Fort Ord. Subsequent analysis lead to the recommendation that a one-time Mello-Roos special tax for transportation improvements be levied, in preference to a development impact fee.

A tax can be levied in a manner that recognizes general benefit for transportation improvements but that does not demand strict proportionality between the tax rate and the travel demand generated by each land use category. The Mello-Roos special tax can be set, for example, to foster economic development. It is possible to assign a lesser burden to land uses that generate employment and support economic development than would be the burden if a strict rational nexus was required.

It should be understood that a one-time special tax is being recommended. This is not a tax that would be levied on future homeowners and businesses over many years, to repay the cost of

bonded debt. The tax would be collected once, at the time a building permit is issued. The subsequent homeowner or business would be no more aware that this tax had been levied than they would be aware that a development impact fee had been levied. In other words, the legal theory on which the tax is levied differs from the legal theory that must underlie a valid development impact fee. The economic effect of a one-time Mello-Roos special tax is exactly comparable to the economic effect of a development impact fee.

The recommended Mello-Roos tax rate for transportation projects was shown in Table PFIP 5-1.

5.5.1.6 Relationship to Land Use

As were noted previously it was originally assumed that a transportation development impact fee would be recommended both for land development projects located within the territory of Fort Ord and land development projects located elsewhere in the Fort Ord Transportation Impact Area. Careful attention was given to an assessment of the relative demand placed on transportation improvements by the different categories of land use in the Fort Ord Reuse Plan. Trip-generation rates (e.g. trips per acre per day) alone are an inadequate measure since the trips observed to stop at a retail establishment are frequently trips whose primary origin is a workplace and primary destination is a residence. Only a portion or such a trip can reasonably be assigned to retail land use categories.

The recommended "rational nexus" Dwelling Unit Equivalent (DUE) factors for transportation are shown in Table PFIP 5-5. This exhibit considers the percent of trips with a stop at a retail establishment that represent a pass-by trip or a short diversion from a trip whose primary purpose was work-home or home-work. In addition the expected length of the trip is considered when relative responsibility to pay by each land use category is considered.

Table PFIP 5-5 also shows the DUE factors that are recommended for the Mello-Roos special tax. As noted previously the Mello-Roos DUE factors (and the resulting tax rates) were selected to encourage job-generating land uses.

Table PFIP 5-5 can be used as a guide to the rates of development impact that would be collected outside of territory within Fort Ord but elsewhere in Monterey County as part of the recommended Cities/County development impact fee program. The impact fee rate can be approximated by selecting land use categories used in each participating jurisdiction (i.e. each city and unincorporated Monterey County) that corresponds most closely to the land use categories shown in Table PFIP 5-5.

Table PFIP 5-4
Project Costs and Sources of Financing
Transportation Financing Plan

Project Class	*Total Cost*[1]	*Fort Ord Shares*[1]	*Source of Financing*
Improvements - regional system [2]	$685,000,000	$54,254,000	New County-wide transportation tax
Improvements to serve Fort Ord:			
• Improvements located on territory within Fort Ord	$13,706,300	$10,856,422	Fort Ord share: one-time Mello-Roos special tax
• Improvements located outside of Fort Ord	$110,300,700	$71,563,798	Other new development in the Fort Ord Transportation Impact Area. Cities/County transportation development impact fee
Allowance - land development projects that are exempt from fee or tax increases [3]	$24,000,000	$24,000,000	One-time Mello-Roos special tax

Notes:

1) Dollar amounts are in July, 1995 dollars.

2) Significant improvements on the regional transportation system are required to meet Level of Service (LOS) targets whether or not reuse occurs at Fort Ord.

3) Land development projects with vesting tentative subdivision maps or development agreements may be exempt from increases in development impact fees or additional special taxes.

4) The full list of Base-wide transportation improvement projects, staged over time is given in Section PFIP 1.7.

Table PFIP 5-5
Relationship To Land Use
Transportation Financing Plan

Land Use Categories	Unit	Basic P.M. Peak Trip Rate	New Trip %	New Trip Rate	Relative Trip Length	VMT Per Unit	Traffic DUE	Mello-Roos Allocation Factor
RESIDENTIAL - Existing								
Low Density	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
Medium Density	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
High Density	Dwelling Unit	0.83	100%	0.83	3.70	3.07	0.87	0.87
RESIDENTIAL - New								
Low Density (4/acre)	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
Medium Density (6/acre)	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
High Density (8/acre)	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
Attached (10/acre)	Dwelling Unit	0.83	100%	0.83	3.70	3.07	0.87	0.87
Attached (20/acre)	Dwelling Unit	0.62	100%	0.62	3.70	2.29	0.65	0.65
RESIDENTIAL - Other								
CSUMB - Existing	Dwelling Unit	1.01	100%	1.01	3.50	3.54	1.00	1.00
CSUMB - New	Dwelling Unit	n/a						
POM Annex Housing	Dwelling Unit	n/a						
RETAIL & VISITOR SERVING								
Convenience	1,000 SqFt	15.14	50%	7.57	1.30	9.84	2.78	2.50
Neighborhood	1,000 SqFt	7.28	55%	4.00	1.50	6.01	1.70	2.50
Regional/Outlet	1,000 SqFt	4.71	65%	3.06	1.70	5.20	1.47	2.50
Hotel	Room	0.69	100%	0.69	4.00	2.76	0.78	0.78
LI/BP & OFFICE/R&D								
UC MBEST	1,000 SqFt	2.05	90%	1.85	5.10	9.41	2.66	0.58
LI/BP	1,000 SqFt	0.91	100%	0.91	5.10	4.64	1.31	0.74
Office/R&D	1,000 SqFt	2.05	90%	1.85	5.10	9.41	2.66	0.64
PLANNED PUBLIC FACILITIES								
Other	n/a							
Miltary Enclave	n/a							
CSUMB	Student	0.23	70%	0.16	6.00	0.97	0.27	0.10
Institutional	Employee	0.83	90%	0.75	6.00	4.48	1.27	1.27
Public Schools	n/a							
OPEN SPACE & RECREATION								
Habitat Protection	n/a							
New Golf Courses	Courses	60.48	90%	54.43	7.10	386.47	109.33	109.33
State Parks	n/a							
Equestrian Centers	Acres	0.39	90%	0.35	6.40	2.25	0.64	0.64
Parks & Greens	n/a							

Source: JHK & Associates. Mello Roos factors from Angus McDonald and Associates

5.5.2 Financing Plan for Water and Wastewater Improvements

The plan for presenting water and wastewater system improvements is presented in Section PFIP 3 of the present report.

5.5.3 Financing Plan for Habitat Management - Capital Costs

5.5.3.1 Purpose of the Financing Plan

As discussed more fully in Section PFIP 5.4.1 the general purpose of financing plans for all Base-wide facilities is to provide a means to finance the public improvements required to meet the objectives of the Fort Ord Reuse Plan. The specific purpose is to assure financing for the projects listed in Section PFIP 1.7 of the present document.

The principals for financing public improvements that were listed Section PFIP 1.5 are each applicable to the present section. They are incorporated by reference into the present section.

5.5.3.2 Development Being Served

The financing plan for habitat management improvements is based on the forecast of growth cited previously through the end of calendar year 2015.

5.5.3.3 Level of Service and Timing Standard

The Level of Service (LOS) Standard and the Timing Standard incorporated into the Fort Ord Reuse Plan is summarized in Table PFIP 5-6. It should be understood that the LOS and Timing Standard together with the estimated increase in demand for services that is forecast to occur by the end of calendar year 2015 were used directly design the habitat management program. Accordingly there is a direct relationship between the forecast of future development, the target for Level of Service, the Timing Standard, and the size and cost of the habitat management program.

5.5.3.4 The Financing Plan for Habitat Management - Capital Costs

The habitat management program is of Base-wide significance and provides a benefit throughout the territory within Fort Ord. Accordingly it is reasonable to spread the cost for habitat management-capital improvements over all residences throughout the territory within Fort Ord, not just to beneficiaries who reside within the political jurisdiction where the habitat is located.

The habitat management capital projects were listed in Section PFIP 1.7. The development impact fee or Mello Roos special that would finance habitat improvements was given in Table PFIP 5-1.

5.5.3.5 Relationship to Land Use

The DUE factors for the development impact fee to finance capital costs for the habitat management program reflect the fact that the primary beneficiaries are residents on the territory within Fort Ord. Accordingly the DUE factors are based on persons per household. They are shown in Table PFIP 5-7.

Table PFIP 5-6
Level of Service and Timing Standards
Habitat Management Financing Plan

	Level of Service (LOS) Standard	*Timing Standard*
HABITAT MANAGEMENT	Improvements required to protect the habitat area and enable the Habitat Management Plan objectives to be implemented.	Protection improvements need to be made quickly after the time of land transfer. All improvements should be made within the first 5 years of development on Fort Ord (Phase I - 1996-2000).

5.5.4 Financing Plan for Fire Protection

5.5.4.1 Purpose of the Financing Plan

As discussed more fully in Section PFIP 5.4.1 the general purpose of financing plans for all Base-wide facilities is to provide a means to finance the public improvements required to meet the objectives of the Fort Ord Reuse Plan. The specific purpose is to assure financing for the projects listed in Section PFIP 1.7 of the present document.

The principals for financing public improvements that were listed in Section PFIP 1.5 are each applicable to the present section. They are incorporated by reference into the present section.

5.5.4.2 Development Being Served

The financing plan for fire protection is based on the forecast of growth cited previously through the end of calendar year 2015. The financing plan for fire protection is based on the concept that services are being provided both to residential and nonresidential land.

5.5.4.3 Level of Service and Timing Standard

The Level of Service (LOS) Standard and the Timing Standard incorporated into the Fort Ord Reuse Plan is summarized in Table PFIP 5-8. It should be understood that the LOS and Timing Standard together with the estimated increase in demand for services that is forecast to occur by the end of calendar year 2015 were used directly to calculate the demand for additional fire facilities. Accordingly there is a direct relationship between the forecast of future development, the target for Level of Service, the Timing Standard, and the size and cost of fire facilities.

5.5.4.4 Planned Fire Protection Improvement

A fire protection improvement capital project was listed in Section PFIP 1.7. The development impact fee that would finance fire protection improvements was given in Table PFIP

The allowance for a contribution to a fire station as a Base-wide facility is based on the assumption that this facility would be staffed in a joint staffing program by fire fighters from the city of Seaside and the Salinas Rural Fire District. The exact location and staffing plan and first response characteristics of this station are still under review. Nonetheless, an opportunity is clearly present to achieve economies by providing response capabilities and mutual aid/automated paid agreements that are not constrained by jurisdictional boundaries.

5.5.4.5 The Financing Plan for Fire Protection Improvements

A fire protection development impact fee or a one-time Mello-Roos special tax are recommended to finance the portion of a fire station that can be determined to be of Base-wide significance. The recommended rate for this fee or special tax was shown in Table PFIP 5-1.

5.5.4.6 Relationship to Land Use

In certain circumstances, difficult terrain may control location of fire stations and resulting response time. Land densities and intensities (e.g. the presents of high-rise, office buildings or residential structures) may control the equipment that is appropriate to a first response.

As a generalization, however the acreage being protected controls response time and determines the location of fire stations and the appropriate equipment housed within the station. As a result the appropriate basis for levying a fire protection development impact fee or a special tax is the acreage being served.

Table PFIP 5-9 shows the fire protection impact fee DUE factors that are appropriate for the territory within Fort Ord are based on a conversion of acreage into the relative levy per dwelling unit or thousand square feet of building space. The conversion reflects the assumptions about residential densities and land use intensities for the other land uses that have been used consistently for all aspects of the Fort Ord Reuse Plan.

Table PFIP 5-8
Level of Service and Timing Standards
Fire Protection Financing Plan

	Level of Service (LOS) Standard	*Timing Standard*
FIRE PROTECTION	Maintain an average response time of seven (7) minutes in all areas being served by the Salinas Rural Fire District by the first-in engine company.	A new fire station would be located in the territory of Fort Ord when the area has reached approximately fifty percent (50%) of its build-out, or the number and type of calls for service dictate a response time less than the seven (7) minute average.

5.6 Pay-As-You-Go Financing

The process of calculating development impact fees and subsequently, a one time Mello-Roos Special tax, was as follows

- A drawdown schedule was prepared showing annual cash requirements to finance the CIP that was presented in Section PFIP 3 of the present report.
- The development forecast to 2015 was then converted into three forecasts of Dwelling Unit Equivalents (DUEs) for transportation, habitat management and fire protection.
- Rates were calculated that would finance this drawdown schedule and that would not have the total fund balance in any year become negative.

The results of this calculation are summarized in Table PFIP 5-10 Somewhat surprisingly for such a large capital program, current indications are that this program can be financed on a pay-as-you-go basis. If development occurs in accordance with the forecast, use of bonded debt will not be required.

5.6.1 Fall-Back Financing Districts

Pay-as-you-go financing plans for public improvements are vulnerable to a slowdown in the rate at which development actually occurs. Public improvements that are scheduled for the early years cannot be constructed until sufficient cash has accumulated to finance the improvements. If the rate of development is materially lower than the rate was assumed in the development forecast, the entire process of base reuse may be delayed unacceptably.

If this occurs, consideration should be given to using one or more financing districts (e.g. Special Assessment districts or Mello-Roos Community Facilities districts) to issue bonded debt. The bond proceeds will then provide the cash that will allow development to proceed.

If financing districts are used two options should be considered. First, a conventional bond issue payable over 20-25 years could be used. If there are concerns that homeowners and other buyers of land will resist long term financing, then another alternative can be considered. Special consideration can be given structuring a bond issue such that the bonds can be paid in their entirety (in say Year Three) without an onerous pre-payment penalty. The bond market would command an interest rate premium for bonds with no prepayment penalty, but any adverse effects on the land marketing program because of buyer objections to long-term debt will be avoided.

Table PFIP 5-9
Relationship To Land Use
Fire Protection Financing Plan

Land Use Categories	Unit	Fire DUE Factors (Per Acre)
RESIDENTIAL - Existing		
Low Density	Acre	1.00
Medium Density	Acre	1.00
High Density	Acre	1.00
RESIDENTIAL - New		
Low Density (4/acre)	Acre	1.00
Medium Density (6/acre)	Acre	1.00
High Density (8/acre)	Acre	1.00
Attached (10/acre)	Acre	1.00
Attached (20/acre)	Acre	1.00
RESIDENTIAL - Other		
CSUMB - Existing	Acre	
CSUMB - New	Acre	
POM Annex Housing	Acre	
RETAIL & VISITOR SERVING		
Convenience	Acre	1.00
Neighborhood	Acre	1.00
Regional/Outlet	Acre	1.00
Hotel	Acre	1.00
LI/BP & OFFICE/R&D		
UC MBEST	Acre	1.00
LI/BP	Acre	1.00
Office/R&D	Acre	1.00
PLANNED PUBLIC FACILITIES		
Other	n/a	n/a
Miltary Enclave	n/a	n/a
CSUMB	Acre	0.00
Institutional	Acre	1.00
Public Schools	n/a	n/a
OPEN SPACE & RECREATION		
Habitat Protection	n/a	n/a
New Golf Courses	Acre	0.50
State Parks	n/a	n/a
Equestrian Centers	Acre	1.00
Parks & Greens	n/a	n/a

Source: Angus McDonald and Associates

Table PFIP 5-10
Cash Flow Analysis Of Mello-Roos Special Tax For Basewide Facilities

Description Of Cost	TOTAL	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Transportation Improvements	$136,510,000	$0	$1,420,000	$7,090,000	$4,890,000	$6,480,000	$5,530,000
Habitat Maintenance	$667,800	$0	$2,800	$464,600	$180,800	$19,600	$0
Fire Facilities	$1,110,000	$0	$0	$0	$0	$0	$0
Administrative Costs	$6,914,390	$0	$71,140	$377,730	$253,540	$324,980	$276,500
Other Expenditures	$0	$0	$0	$0	$0	$0	$0
Total Project Costs Funded From Special Tax (July 1, 1995 Dollars)	$145,202,190	$0	$1,493,940	$7,932,330	$5,324,340	$6,824,580	$5,806,500

ANALYSIS OF SOURCES AND USES OF FUNDS - ACTUAL YEAR DOLLARS Fort Ord - Special Tax	Total	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Funds Available For From Prior Periods	$0						
Beginning Fund Balance		$0	$9,031,917	$20,084,861	$25,131,609	$29,774,368	$30,804,964
Borrowing From Outside Sources	$0	$0	$0	$0	$0	$0	$0
Revenues: Special Tax For Basewide Facilities	$187,729,690	$8,808,001	$11,894,321	$12,506,444	$9,222,503	$7,391,169	$7,629,985
Total Revenues	$187,729,690	$8,808,001	$11,894,321	$12,506,444	$9,222,503	$7,391,169	$7,629,985
Expenditures for Public Improvements	$215,218,422	$0	$1,566,994	$8,589,057	$5,951,426	$7,874,841	$6,916,571
Repayment of Borrowing From Outside Sources	$0	$0	$0	$0	$0	$0	$0
Total Expenditures	$215,218,422	$0	$1,566,994	$8,589,057	$5,951,426	$7,874,841	$6,916,571
Net Revenues (Expenditures)	($27,488,733)	$8,808,001	$10,327,327	$3,917,387	$3,271,077	($483,672)	$713,414
Interest Earnings on Beginning Balance	$28,286,462	$0	$463,076	$1,029,773	$1,288,525	$1,526,564	$1,579,404
Interest Earnings on Collections	($698,817)	$223,916	$262,541	$99,588	$83,157	($12,296)	$18,136
Fund Balance - End of Period	$98,913	$9,031,917	$20,084,861	$25,131,609	$29,774,368	$30,804,964	$33,115,919

BORROWING FROM OUTSIDE SOURCE ANALYSIS Fort Ord - Special Tax	Total	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Funds Borrowed from Outside Source From Prior Periods	$0						
Beginning Fund Balance		$0	$0	$0	$0	$0	$0
Borrowings	$0	$0	$0	$0	$0	$0	$0
Repayments	$0	$0	$0	$0	$0	$0	$0
Net Borrowings (Repayments)	$0	$0	$0	$0	$0	$0	$0
Interest Accrued on Borrowing From Outside Source	$0	$0	$0	$0	$0	$0	$0
Fund Balance - End of Period	$0	$0	$0	$0	$0	$0	$0

Source: Angus McDonald & Associates.

FIP 5-10
·low Analysis Of Mello-Roos
·cial Tax For Basewide Facilities

Description Of Cost	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Transportation Improvements	$5,530,000	$2,745,000	$2,745,000	$3,360,000	$3,360,000	$12,907,500	$12,907,500	$12,907,500
Habitat Maintenance	$0	$0	$0	$0	$0	$0	$0	$0
Fire Facilities	$0	$555,000	$555,000	$0	$0	$0	$0	$0
Administrative Costs	$276,500	$165,000	$165,000	$168,000	$168,000	$645,375	$645,375	$645,375
Other Expenditures	$0	$0	$0	$0	$0	$0	$0	$0
Total Project Costs Funded From Special Tax (July 1, 1995 Dollars)	$5,806,500	$3,465,000	$3,465,000	$3,528,000	$3,528,000	$13,552,875	$13,552,875	$13,552,875

ANALYSIS OF SOURCES AND USES OF FUNDS - ACTUAL YEAR DOLLARS Fort Ord - Special Tax	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Funds Available For From Prior Periods								
Beginning Fund Balance	$33,115,919	$35,568,996	$41,220,101	$47,284,612	$52,260,393	$57,573,727	$48,425,502	$38,417,271
Borrowing From Outside Sources	$0	$0	$0	$0	$0	$0	$0	$0
Revenues: Special Tax For Basewide Facilities	$7,876,517	$8,131,016	$8,393,737	$7,260,707	$7,495,307	$7,737,488	$7,987,495	$8,245,579
Total Revenues	$7,876,517	$8,131,016	$8,393,737	$7,260,707	$7,495,307	$7,737,488	$7,987,495	$8,245,579
Expenditures for Public Improvements	$7,140,052	$4,398,461	$4,540,580	$4,772,514	$4,926,719	$19,537,600	$20,168,880	$20,820,557
Repayment of Borrowing From Outside Sources	$0	$0	$0	$0	$0	$0	$0	$0
Total Expenditures	$7,140,052	$4,398,461	$4,540,580	$4,772,514	$4,926,719	$19,537,600	$20,168,880	$20,820,557
Net Revenues (Expenditures)	$736,465	$3,732,555	$3,853,157	$2,488,192	$2,568,588	($11,800,112)	($12,181,386)	($12,574,979)
Interest Earnings on Beginning Balance	$1,697,889	$1,823,661	$2,113,400	$2,424,334	$2,679,448	$2,951,868	$2,482,829	$1,969,696
Interest Earnings on Collections	$18,722	$94,889	$97,955	$63,255	$65,298	($299,982)	($309,674)	($319,680)
Fund Balance - End of Period	$35,568,996	$41,220,101	$47,284,612	$52,260,393	$57,573,727	$48,425,502	$38,417,271	$27,492,307

BORROWING FROM OUTSIDE SOURCE ANALYSIS Fort Ord - Special Tax	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Funds Borrowed from Outside Source From Prior Periods								
Beginning Fund Balance	$0	$0	$0	$0	$0	$0	$0	$0
Borrowings	$0	$0	$0	$0	$0	$0	$0	$0
Repayments	$0	$0	$0	$0	$0	$0	$0	$0
Net Borrowings (Repayments)	$0	$0	$0	$0	$0	$0	$0	$0
Interest Accrued on Borrowing From Outside Source	$0	$0	$0	$0	$0	$0	$0	$0
Fund Balance - End of Period	$0	$0	$0	$0	$0	$0	$0	$0

Source: Angus McDonald & Associates.